

ECONOMIC AFFAIRS

- * The New International Economic Order.
- * Economic Relations Between India And Poland.
- * Can Budget Provide the Right Climate ?
- * Finance and Politics in India.

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ECONOMIC AFFAIRS

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Finance and Politics in India

It has become a political fashion for a winning party in Parliamentary elections to denounce all the activities of the vanquished party to cover up its prospective failures in giving proper direction to the country. The Finance Minister belonging to Indira Congress is no exception to this general rule of politics of the country. In his budget speech he has denounced the Janata performances claiming that within 16 month Indira Congress rule the economy has again been on the path of stability and growth. By way of evidences he has cited the Government's efforts to improve the infrastructure, likely improvement of the generation of electricity by about 13 p c. in the second half of 1980-81, expected rise in coal production to the height of 115 million tonnes in 1980-81, growth of industrial production by about 4 p c. in 1980-81 as against 1.4 p c. in 1979-80, production of foodgrains for the same period is likely to exceed 132 million tonnes or 23 million tonnes higher than in 1979-80. All this makes him to expect an overall growth of 6.5 p c in the GNP.

On the price front the increase in 1980-81 up to the end of January 1981 has been 13.5 p c as against about 20 p c. in 1979-80. To him inflation has abated although it has not been overcome—however ambitious imagination may it be.

Coming to budget front he says that the budget for 1981-82 is tailored to help promote the objectives of the 6th plan. To pick up personal savings to feed the investment he has floated the sale of Special Bearer Bonds to mop up the black money and has also revised interest rates on bank deposits to attract savings. However, through reallocation of funds on ground to apex basis he leaves behind a budgetary gap of Rs. 1810 crores at the existing rates of taxation.

In his effort to reduce the gap he has drastically allowed tax exemptions to personal assesseees that has reduced the number of taxpayers by 20 lakhs making the net number 15 lakhs in a vast country like India. This has invited a loss of Rs. 146 crores in a full year

depleting the revenue resources of the States. His exercises on excise duties and customs duties will yield a net revenue of Rs. 28.52 crores and Rs. 282.70 crores respectively. All this manoeuvrings have resulted in the reduction of the gap by Rs. 271 crores leaving yet a gap of Rs. 1539 crores. "The deficit may appear large", the Finance Minister however bogs down the fear and flies with the hope that "the full package policy measures" containing many incentives for higher production will further strengthen the move "forward on the path of growth with stability and social justice".

But what is on record is that the country's surface economy has taken the path of least growth with very high degree of destability and social injustice—if poverty line is indicative.

This contradiction should be publicly admitted, explained, analysed and resolved. Blaming the oppositions or positions will not do good for the country, least for the leaders, and worst for the democracy.

The parties are prone to the politics of concealment because they themselves are the creators, feeders and the fed of the black economy which eats into the vitality of what little is produced by the surface economy. The Special Bearer Bonds and the clamour for its shares by the States is a glorious example of it. The novelty of the Finance Minister that the country should be taxed the least rests on the philosophy of erosion of the surface economy, development of the black economy and occasional sharing of the fruits of it. People will be foolishly pleased as not being taxed, blackers will be generous to run all the parties and professionals sharing their social loot with them. But are not they the basic conditions for a social revolution that sweeps away the political elites and their bases ?

Tea Board in Tea Auction

Himansu Roy*

The Calcutta Tea Traders' Association has expressed much concern over the recent decision of the Union Commerce Ministry to set up a representative Committee with Tea Board at its helm to oversee the conduct of tea auctions in the country. The CTTA with its 100 years' of experience of running the Calcutta Auction feels that this will make its existence redundant. Even it fears that such direct official intervention may upset the normal sales at the auctions. It will however welcome the move if the proposed committee's functions are limited to providing "guidelines" only for running the auctions and if it acts as a coordinating body for the six auction centres now functioning in the country. It will have no objection if the committee also monitors private sales of tea for better marketing of product.

The Union Commerce Minister's reactions are that the committee to oversee auction is being set up in accordance with the recommendations of the Tandon Committee that the Tea Board should be associated in some manner with the conduct of auctions to ensure proper marketing of tea. To this the tea trade circle states that the Tandon Committee also put on record that all sections of tea trade expressed satisfactions and confidence in the system of public auctions of tea. All this means the tea trade circle apprehends that in this proximate approach of the Union Commerce Ministry there is an hidden attempt to create a doctrinal dent in tea industry. If so, is the Central approach in the right direction ?

Tea Auction has been the conscious creation of the British planters who combined in them the global trading interest in tea. The 'rational' interpretation that was given by them to this smug interest was that 'auction' would provide the right place for the sellers (planters) and buyers (intermediate consumers) to meet through

* Calcutta.

their respective brokers to come to some price and quality understanding through close cooperation and communion.

Thus rolled in the 'broker' in auctions. In the common sense of the term a broker is a 'go-between'. The tea auction brokers are however reluctant to grace themselves by this notion. They go on records: "We are a number of things. We are auctioneers and valuers We are consultants on tea manufacture and market prospects. We are financiers and we deal in Real Estate We provide the basis of tea documentation and statistics". That is, a broker is not a passive element. He is the most powerful exogenous variable in determining tea prices.

The role of buying broker is all the more meaningful. He sends the results of his 'valuations' for the guidance of the buyer, buys as cheaply as possible in auctions and provides credit at his own risk and discretion to the buyer. He may even execute part orders for a parcel of tea and himself may take over the balance for resell. It is claimed that this enables the small dealers who, as a classes, have no access to auction to obtain supplies of their choice. All these are said to be the justifications of the existence of buying brokers in auctions in spite of that the commission payable to them goes to increase the cost of tea.

Moreover, there is no definite distinction between a selling broker and a buying broker, and a broker may perform the dual function of a selling broker and a buying broker. A broker sells tea on behalf of the seller in his best interest and at the same time buys teas in the best interest of the buyer. Such combination of conflicting interests in one is a peculiarity in tea trade as both the production and the trade of tea were once in the hand of British tea monopoly complex. Of late this has changed its national character but not its traditionality.

The number of brokers is extremely limited. The number of actual buyers in auctions is also very limited. In auction both buying and selling brokers seem to be 100% passive in price determination. This is not correct. The brokers have enough scope for influencing prices through the mechanism of "valuation" which is considered by the producers with great care and confidence as they are not only the 'go-between' the producers and the actual buyers but also their friends, philosophers and guides. This process ends in

concentration of considerable economic power in the hand of a limited number of broking houses. Concentration of economic and of buying power in a very few powerful hand can obviously make prices of their own, which has been mildly presented by the GATT "the extent of competition on the auction today is less than is perhaps desirable, and these buyers tend to exert a dominant influence on the course of prices with the result that there is a tendency towards conditions of monopsony". The monopsony works within a oligo down to retail trade.

If seen in the above context it will be evident that the Government is inclined to 'break off' the nucleus of concentration led by the Calcutta Auction which is managed by the CTTA. But "breaking off" is different from "breaking for". The Government should justify that its present operation is a "breaking for" increasing both social and economic efficiencies.

To be precise, if the Government means public sector business in Tea Auction it should not stop half-way. The Tea Board should not mean to play the part of a helmsman. It should be placed as the pivot of the Auction. It should in consultation with the Tea Trading Corporation of India Ltd. and the tea traders and the producers should frame auction rules. It shall arrange for technical services (e.g. sampling, cataloguing, tasting etc.), which are now performed by the brokers, by its own technical staff. Every individual and company, subject to such unavoidable limitations, shall be given the opportunity to buy in auctions and no individual, cooperative or company shall be allowed to buy any quantity and quality of tea. There shall be a ceiling on both the quantity and the quality as there shall be a floor on quantity in the matter of purchase by any individual, cooperative or company. This will prevent concentration in buying vis-a-vis distribution of tea. Teas shall also be auctioned direct to party or to its agent and no 'broker' in any sense of the term should be recognised. Further, each party or an agent should have to disclose to the Tea Board the stocks held by it, the quantity and quality purchased and the price paid for each lot in the respective auctions. That is nothing should be kept undisclosed to the Tea Board regarding purchases and stocks. Still further the Tea Board by arrangement with the Tea Trading Corporation of India Ltd. should allow credit buying to cooperatives and smaller buyers up to the maximum period in order to enable them to compete successfully with the big buyers. The internal promotion shall also be the function of the Tea Board. Lastly, the Tea Board shall be ever vigilant on retail price movement and if the situation so warrants it shall direct the retail prices and even may suspend all auctions taking upon itself the task of selling teas.

Performance and Prospects of Indian Agriculture

A J. Singh*

The purpose of this article is to examine the trends in agricultural growth in the post independence period against the perspective of the demand projections. For an examination of the growth trends, two sub-periods are distinguished. The first period is 1949-50 to 1964-65 that precludes the so-called green revolution and the second period is from 1965-66 to 1977-78. The results are based on log-linear and log-quadratic equations fitted into the data. It would be seen from Table 1 that trends in production of foodgrains have not changed since the introduction of new technology. Nor is there any evidence for the common underlying trend to be accelerating or decelerating. On the contrary, there is some support for shift in trends in output of non-food crops with a slow down in the rate of growth of output after 1964-65.

Turning now to the inter-period comparison of area, production and yield of individual crops, it would be seen that while there has been a decline in the rate of growth of gross sown area, particularly under non-food crops in the post green revolution period as compared to the pre-green revolution period, the output and yield of food crops and all crops taken together grow more or less uniformly over the entire period with no evidence of either acceleration or deceleration.

However, the slow down in the growth of crop in the period after the mid-sixties compared to the earlier period is shared by almost all the crops except wheat. Among the cereals, the coarse grains namely jowar, maize, and bajra lost in area in the post green-revolution period. Among the oil-seeds, groundnut, among the pulses, gram, and among fibres both cotton and jute recorded negative growth in the post green revolution period.

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(Continued on page 77)

The New International Economic Order : Reality or Myth ?

R. R. Barthwal*

1. Introduction

One of the most significant events in the world in the current century has been the birth of the United Nations. This world organization, which was primarily established as a determination to save the succeeding generations of mankind from the scourge of wars, was able to focus the attention of the world community towards growing poverty, inequalities in income distribution, exploitation of one country by another and other issues related to social and economic development. The UN's Economic and Social Council following its broad objective of "maintenance of international peace and security, the creation of conditions for economic stability and the improvement of standards of living of the world population"¹ was in the helm of all this. This Council, together with the parent body of the UNO, and sub-agencies and regional councils like U.N.T.A.D., UNDP, UNIDO, FAO, WHO, UNESCO, IMF, World Bank, GATT, ILO, WFC, ECA, ESCAP, ECWA, ECLA and like that, were able to evolve a common programme for international economic cooperation which we know now by the name of the New International Economic Order (NIEO). How this order was evolved, what are its core objectives, and what has been the progress in implementation of the order, are some interesting queries that constitute the subject matter for discussion in this paper.

2. Historical Background of the NIEO

The historical process that eventually resulted in the emergence of the NIEO in the middle of seventies began just after the World War II when the U.N.O. was established. The calamity of the War and a strong desire to build up the war torned economies of

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the countries through international cooperation brought a large number of countries to work together and strive for the permanent world peace. A new international social and political climate was generated. This encouraged the liquidation of a large number of colonies and many new countries appeared on the world scene. Serious effects were made by all countries particularly the developing ones for social and economic growth. However the success eluded them. The experience of the international development during Fifties was disappointing. Most of the developing countries, though politically independent, were converted as "defacto" colonies of the developed countries because of their economic dependence on them. Recognizing this fact, and partly disgusted with its own poor performance, the United Nations launched the 1st United Nations Development Decade in 1961. It was followed by the creation of the UNCTAD in 1964. The basic objective of these action programmes was to remove the structural imbalances which developed in the world economies during the Fifties and to make the developing countries self-reliant and capable of achieving their developments goals. The UNTAD had its second session in 1968. Almost at the same time the Pearson Commission submitted its report on global partnership for development.² Many regional convention such as Alliance for Progress (1961), Yaunde Conventions (1963, 1966) and Arusha Convention (1969) were held during the Sixties to achieve the goals of the international economic development. All such efforts virtually failed. The poor countries continued to be highly dependent on the rich ones for money, knowhow, food and guidance. The internal conditions developed as a result of high population growth and political instability also forced the poor countries to look towards the rich for help who exploited them in all respect. The beginning of the Seventies brought a turning point in the world economic history. The 1st U. N. Development Decade was replaced by the second one. The Lusaka Summit of the Non-Aligned Countries (1970) adopted a major declaration on non-alignment and economic cooperation. The action plan based on this was adopted by them in The Algiers Summit in 1972. This was a very forerunner of the NIEO which appeared on the international scene soon after that through a resolution of the 6th U.N. General Assembly in 1974 which was entitled as 'Programme of Action on the Establishment of a New International Economic

Order.³ This resolution broke the ground in the active search for a new system of economic relationship. The Seventh Session of the General Assembly further reinforced the NIEO by adopting the charters of economic rights and duties of states for development and international economic cooperation.⁴ The emergence of the NIEO thus was not accidental. It was the result of a series of historical facts which can ultimately be related to the rise of the Third World at the time of increasing world trade gaps, energy crisis, rising defence outlays and political blackmail by the rich in many developing countries. The coverage of the NIEO has been wide enough, a glance of which can be had in the following section.

3. Objectives of the NIEO

The issues on which the NIEO concentrated and established norms and targets for action can be grouped into six categories each one having specific items as listed below.

I. Aid and Assistance

1. Attaining United Nations Official development assistance targets.
2. Provision of technical assistance for development and eliminating the brain-drain.
3. Renegotiating the debt of developing countries
4. Undertaking special assistance measures to assist land-locked, least developed and island developing countries.
5. Using funds for disarmament for development.

II Internal Trade

6. Improving the terms of trade and conditions of trade of developing countries in including adjustments in policies for expansion and diversification of trade.
7. Adopting integrated approach and programmes for commodities; buffer stocks; producers associations; and indexation.
8. Developing an international food programme.
9. Improving the trade relations and volume between countries having different social and economic systems.
10. Strengthening economic and technical cooperation among developing countries.

III. Internal Financial Issues

11. Reforms in the international monetary system, using the Special Drawing Rights for development, promoting stable exchange rates and protection from the effects of inflation.
12. Assuring adequate participation by the developing countries in World Bank and IMF decisions
13. Increasing the transfer of resources through the World Bank and IMF to the poor countries.

IV. Issues of Industrialization, Technology, Transfer and Business Practices

14. Negotiating the redeployment of industrial productive capacities to the developing countries.
15. Establishing mechanisms for transfer of technology to developing countries.
16. Regulation and supervision of the activities of transnational enterprises and elimination of restrictive trade practices.
17. Improvement in the competitiveness of the natural resources and ending their waste.
18. Providing equitable access to the resources of the sea-bed and ocean floor.

V. Social Issues

19. Achieving a more equitable distribution of income and raising the levels of employment.
20. Providing health services, education, higher cultural standards and qualifications for the work forces ; special programmes for children and women.

VI. Political and Institutional Issues

21. Assuring the economic sovereignty of States : Natural Resources, Foreign Property, Choice of Economic System.
22. Compensating the adverse effects on the resources of States, Territories and people of foreign occupation, alien and colonial domination or apartheid.
23. Establishing a system of consultations at Global, Regional and Sectoral levels with the aim of promoting industrial development.

24. Restructuring the economic and social sections of the united Nations.

A fairly detailed specification of the action programmes related to all these above objectives of the NIEO is given by Laszlo and others⁵ and also by Tinbergen, et al,⁸. The concern and determination of the international community for the global development of the mankind is clearly visible in the above objectives of the NIEO.

4 Evaluation

The NIEO is designed not only to increase the flow of aid, technology and trade from the developed to the developing countries but also to correct the structural imbalances developed in the world economy which made the developing countries dependent on the developed countries for everything. Changes in the international institutions and political power structure and equal opportunities for future progress are envisaged in the NIEO. This is what the underdeveloped or developing countries want in the context of achieving their development goals. The developed countries have accepted the proposition of the NIEO with some hesitation but have not yet faced the broader implications of it. The progress on implementation of the order by them has been very slow and biased. Few examples can be quoted here.

- (a) The ODA (ie Aid) target of 0.70 percent of G.N.P could not be met by the developed countries except Sweden Netherlands, Norway and Denmark in the post-NIEO period. In 1979, for example, the realized, ODA/GNP ratio for the major industrialised countries was as: Sweden 0.94%, Netherlands and Norway 0.93%, Denmark 0.75%, France 0.59%; U.K 0.52%, Canada 0.47%; W Germany 0.44%, USA 0.19%; Russia and East European countries 0.04%. The OPEC countries on the other hand had 1.28% ratio of ODA/GNP. Together for all countries this ratio declined from 0.35% in 1978 to 0.34% in 1979.¹² Similar discouraging trends were seen for the previous years also.
- (b) In the post-NIEO period (upto 1978) the share of the developing countries in the total world trade declined to 1/5th and bulk of it was destined to the developed countries which were former colonial powers.

- (c) Developing countries got only 4% of the new international reserve of \$ 131 billion between 1970 and 1974 which declined further in the post-NIEO period.
- (d) 94 percent of the patents related to R & D are held by the individuals and organizations of the developed countries. Even from the remaining 6 percent, 84 percent patent are held by the foreigners in the less developed countries.
- (e) The world's annual defence expenditure totals \$ 450 billion nearly, as compared to official development assistance of \$ 20 billion per year. Similar examples can be cited pertaining to almost every objective of NIEO. All this shows the rich countries are not taking the goals of the NIEO seriously. They are still monopolizing the technology, and other strategic areas including power to decide the future of the Third World⁶. The developed countries of the West feel that the NIEO is a radical demand by the Third World Nations to finance their development out of the donations and taxes of the industrialized countries. This is, of course, a misinterpretation of the concept. The NIEO has minor role as far as aid is concerned. It lays greater emphasis on making the developing countries self-reliant and prosperous. The attitude of the countries in the Second World (USSR & others) is also not very much favourable to the NIEO. Their economic relations are governed mainly by the political affinity rather than humanitarian aspect of the universal brotherhood. The poor ODA/GNP ratio for such countries for 1979 as mentioned earlier is a proof for this. These countries argue that additional resources for the developing countries should come from the imperialist countries and their monopolies who exploited them in the past and doing same thing now.

5 The Post-NIEO Era

Ever since the NIEO was launched it has become one of the most intensively debated world issues. Conferences, declarations, seminars, position papers etc., focused attention on various aspects of the NIEO in both developed and under developed countries. Every country looked the NIEO from its own interest and argued in favour

or against accordingly. However, the most significant development in the post-NIEO era was emergence of independent non official organization like North-South Round Table conferences⁷ and the Club of Rome⁸ to foster ahead the cause of the NIEO and to give it a new shape. The independent Commission on international development popularly known as Brandt Commission⁹ has come up with a report suggesting some sweeping changes in the old NIEO¹⁰. The Commission, among other things, suggested a large scale transfer of resources from the developed countries to the Third World; creation of a system of international taxation to finance the development programmes automatically; decentralization of the World Bank operations; establishment of a World Development Fund; and an emergency core programme for 1980-85 comprising of an international energy strategy, a global food programme and reforms in the international economic system. The commission views this emergency programme as a basis for a new World "connected in partnership between North and South" and a ray of hope for the poor countries with no end of poverty and hunger. It has stressed on disarmament as "more arms don't make mankind safer, only poorer".

The report which has not yet been discussed and understood properly by the world community is subjected to initial criticism of being as academic utopianism and destined to dustbin¹¹. The communique of the Venice Summit of the 7 major industrialized countries is an indication of this.¹² The coming time however will show the precise usefulness of the report. At present on the face value it is certainly "a programme for survival" in the terminology of the Commission. Creation of a new fund by the UNDP (June 80) to help the developing countries with their energy problems is a significant step in this direction

6. Concluding Remarks

The NIEO as conceived and designed is not disturbing the economic system of a country. Its objectives and the objectives of the countries whether they follow the centralized planning system mechanism are complementary. The concept is a viable proposition providing a framework for international development with equality and justice. It is capable of creating local conditions in a country to wipe out poverty and fulfil the basic needs and this is what we

need at present. The only snag with the NIEO is its slow adoption by the rich countries. The developed countries are hesitating in accepting the NIEO in totality as they expect little gain from it. It is however a shortsightedness on their part. A developed world will generate conditions harmonious and beneficial to each party. The rich countries should realize this fact and cooperate sincerely in implementing the NIEO in order to give strength to the objective of international solidarity and brotherhood. The international agencies need to be reorganized in order to give more say to the Third World countries otherwise biased decisions of such agencies may cause slow progress of the NIEO making it a myth rather than reality of the human life.

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Prospects of Foodgrain Production in Punjab

S. S. Grewal and I. S. Chatha*

India experienced a serious food crisis during early fifties to early sixties. Foodgrain production, therefore, has been engaging continuous attention of the government and from time to time various measures have been initiated by it to increase foodgrain production. With the evolution of dwarf varieties after mid-sixties, considerable progress has been made by the country on this front. The achievements made by the Punjab State are spectacular and has a few parallels in the world history. The State experienced green revolution after mid-sixties and only about 2 per cent of the area in the country accounts for as much as about 50 percent of the foodgrains procured for the central pool. In view of the increasing demand, the efforts need to continue to explore and exploit the potential for adding to the foodgrain basket. This paper is an attempt at analysing the possibilities in this direction. We have studied and analysed the position in retrospect and based on experience and under some realistic assumptions, we have projected the foodgrain production for the Sixth Five-Year Plan period. Specifically, the objective of the study is to examine the scope of increasing foodgrain production during the Sixth Plan and bring out the factors contributing to more production to the focus of the policy makers for proper action.

Position in Retrospect

We have examined the trend of area, production and productivity for different foodgrains in the State for the last 20 years i.e. 1960-61 to 1979-80. The important points are discussed below :

Area

The total area under foodgrains was 30.63 lakh hectares in 1960 61 and it increased to 47.98 lakh hectares in 1979-80 (an increase of 56 64 per cent). The most rapid increase has been since 1966-67 with

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the introduction of high yielding varieties. Among the foodgrains, the most noticeable increase has been in case of cereals where the area has more than doubled in the last two decades and among the cereals again, the most spectacular increase has been in the production of wheat and paddy, particularly the later where the area increased five times compared to 1960-61 and more than doubled compared to 1973-74. The most disquieting trend has been observed in case of pulses where the area in the terminal year i.e. 1979-80 was only about 1/3 of what it was in the year 1960-61 and the decline has been more sharp in the period of green revolution i.e. after 1966-67. This shows that the cropping pattern has become cereal dominated and the axe has fallen on the cultivation of pulses.

Production

The production of total foodgrains increased from 31.62 lakh tonnes in the base year to 119.55 lakh tonnes in 1979-80 (an increase of about 278 per cent compared to 56.64 per cent increase in area). The production has also made big jumps during the green revolution period. Of the total foodgrain production in 1979-80, about 98 per cent was accounted for only by cereals; the pulses contributing a meagre 2 per cent, although these occupied about 6.5 per cent of the total area under foodgrains. This brings to light glaring disparity in growth rates in the productivity of cereals and pulses. Again among the cereals, wheat and rice accounted for 66 and 25.6 per cent of the total foodgrain output.

Productivity

On the productivity front, again, wheat and the paddy are the two crops where the increase has been of the order of about 125 and 158 per cent respectively in the terminal year of the period under reference compared to the base year period. There has been virtually no increase in the yield levels of gram, the most important pulse crop of the State. Productivity increase is visible in case of barley and bajra also but the increase is only slight for maize crop.

Growth Rates

The position discussed above was examined further by working out the compound growth rates for production, area and productivity

of different foodgrain crops (Table 1). The figures show that the rice crop recorded a production growth rate of 15.76 per cent where the growth rate of area was 8.53 per cent and that of its productivity 6.66 per cent. Next highest growth rate of 9.13 per cent was recorded in the case of wheat crop where the area and productivity grew at the rate of 4.00 and 4.93 per cent respectively. Among other crops, bajra, barley and maize recorded growth rates between 2 and 3.5 per cent in production. Gram, on the other hand, experienced a negative growth rate of 5.5 per cent. Foodgrains as a group increased at the rate of 7.97 per cent per year.

Variables Influencing Grain Production

The grain production in the State has increased manifold during the last two decades. This is due to interaction of several variables. The area during the period increased by 56.64 per cent. The productivity increase has been made possible by increase in irrigated area, area under high yielding varieties and fertilizer use where the increase in the year 1979-80 was of the order of 90.95 per cent, 449.16 per cent and 524.36 per cent respectively over the year 1967-68.

District-wise Analysis

The district wise position regarding total foodgrain production, production per hectare and variables influencing productivity are given in Table 2. Per hectare output has been arranged in descending order to depict the differential level of productivity in different districts. It will be seen that against the State average of 2453 kg per hectare, Ludhiana district had production of 3178 kg followed by Patiala (2701 kg) and Amritsar (2596 kg). Compared with this, the districts of Hoshiarpur, Bhatinda and Ropar had the productivity levels of only 1735 to 1895 kg per hectare. Looking at these figures, one would like to know the factors associated with these widely ranging levels of productivity. To find an answer to these problems rank correlations were worked out between per hectare output and each of the related variables viz, fertilizer use, per cent area irrigated, per cent area under dwarf varieties and cropping intensity. The results are indicated in Table 2. The rank correlation turned out to be highly significant for variables of irrigation, area

under high yielding varieties, fertilizer use and cropping intensity indicated in order of importance. This is indicative of the fact that manipulation of these variables would provide enough scope to level up the productivity differentials across districts.

The contribution of the above variables towards foodgrain production was examined by fitting a regression equation to the district-wise data for two years. The regression equation is given below :

$$Y = \underset{(52.68)}{-128\ 1867} + \underset{(0.3397)}{1.5100} * X_1 + \underset{(1.4583)}{9.5988} * X_2 + \underset{(0.3777)}{0.0126} X_3 + \underset{(0.6531)}{0.02250} X_4$$

$$R^2 = 0.9629$$

Where,

Y = Production of foodgrains

X₁ = Area under foodgrains

X₂ = Fertilizer use per hectare (nutrients)

X₃ = Irrigated area under foodgrains

X₄ = Area under dwarf varieties of foodgrains

Note : Figures in brackets are the standard error of the respective parameter.

* Significant at 1 per cent level.

This shows that the area and fertilizer turned out to be highly significant in influencing production. According to the result an additional hectare of land would add 1.51 tonnes of foodgrains. Similarly an additional use of 1 kg of fertilizer nutrients would lead to an increase of 9.60 kg of foodgrain production per hectare.

Estimates for Sixth Plan

After analysing the existing position in the matter of grain production we have made the projections for the terminal year of the Sixth Five-Year Plan. The estimates have been made under three different situations making separate assumptions in each case. These are discussed below :

Situation I

Based on the past trends in the State, it has been assumed that area under wheat and paddy crops will grow at an annual rate of 2 per cent while it would remain at the level of 1979-80 for other foodgrains which recorded negative growth rates in the previous period. Regarding productivity again, rice, wheat and barley are assumed to record a growth rate of 2 per cent while it will be 1 per cent for the other foodgrains. This situation assumes the normal level of effort as has been made hitherto in pushing up the production of foodgrains in the State. Using these yard-sticks the area, productivity and total production estimates indicate that the total production of foodgrains would go up to 144 lakh tonnes against the level of 120 lakh tonnes in 1979-80 (an increase of 20 per cent). Out of this the share of pulses is estimated at 2.15 lakh tonnes (1.5 per cent of the total foodgrains).

Situation II

The difference in this case compared to situation I is the extra amount of effort that shall have to be made in promoting the higher level of adoption of known technology in the cultivation of paddy and wheat crops. It has been assumed that it shall be possible to realize 60 per cent of the potential level of productivity in these two crops against the present level of about 43.5 and 54 per cent. This would take their yield levels to 36 qtls. of rice and 31.2 qtls. of wheat per hectare in the terminal year of the plan. The area and productivity increase for other foodgrains has been assumed at the level of situation I. This approach yields an estimate of 154.47 lakh tonnes of foodgrains in the final year of the plan (an increase of 28.73 per cent over the existing level).

Situation III

In this case differential growth rates in area and productivity have been assumed for different districts. For area growth rates of 2.5 to 3.0 per cent have been assumed for the six districts of Patiala, Sangrur, Amritsar, Ferozepur, Hoshiarpur and Ropar which would be possible through reclamation of salt affected and culturable waste lands and increase in irrigation. For the remaining districts, the normal growth rate of 2 per cent is taken.

• In the matter of productivity, it is assumed that the six districts of Amritsar, Patiala, Sangrur, Ferozepur, Faridkot and Jullundur would attain the existing level of Ludhiana district (3178 kg per hectare) through increased use of irrigation, fertilizer and intensive extension education programmes. The remaining districts except Ludhiana will achieve the existing level of State average (2454 kg per hectare) while Ludhiana will continue at the average rate of existing growth in production in the State (7.97 per cent).

This approach, therefore, implies a massive effort by way of reclamation of Kallar and culturable waste lands, extension in irrigated area, intensive extension education approach to promote the use of fertilizer and related yield increasing technology. Based on these yardsticks, the total grain production in the State is likely to go up to 165 lakh tonnes by the end of the Sixth Plan Period (an increase of 37.5 per cent over the existing level).

Conclusion

The spectacular increase in foodgrain production in the State of Punjab, particularly after the mid-sixties has been made possible by the introduction of high yielding varieties of wheat and paddy and the concomitant increases in the related variables. There has been a big increase in production of foodgrains because of area and productivity effects. This has been made possible by extension in irrigation facilities, accompanied by increased use of fertilizers, machinery, pesticides, cropping intensity, etc. The future does not hold as fast a rate of growth as realized earlier unless there is a further major breakthrough on the genetic front. However, it is still possible to increase the foodgrain production in the State sizeably through intensive use of the known package of technology and some increase in area as a result of reclamation of salt affected and culturable lands. According to the most modest estimates the foodgrain production is expected to increase to 144 lakh tonnes from the present level of 120 lakh tonnes by the end of the Plan period. With intensive efforts to promote the adoption of known technology for the two major crops of the State (wheat and paddy) the production is likely to touch the level of 154.47 lakh tonnes. If, however, a massive effort is made to bridge the interdistrict productivity differentials, in the adoption of technology along with bringing

Table 2

District-wise foodgrain output in relation to important variables, 1978-79

District	Total foodgrains output ('000 tonnes)	Productivity (Kg./hac.)	Fertilizer use Nutrients (Kg./hac.)	Per cent area irrigated	Per cent area under dwarf varieties	Cropping intensity
Ludhiana	1333.4	3178	149.5	99.30	80.72	176
Patiala	1453.5	2701	113.5	87.86	87.36	174
Amritsar	1317.0	2596	129.3	96.80	90.73	162
Ferozepur	1405.0	2589	106.0	88.87	84.35	154
Jullundur	884.2	2486	134.0	94.75	82.87	161
Faridkot	1152.8	2459	132.9	85.71	84.44	148
Sangrur	1401.9	2346	73.8	80.50	70.57	163
Kapurthala	370.3	2270	161.7	94.73	92.03	136
Gurdaspur	760.7	2082	107.2	70.70	71.78	171
Ropar	267.4	1895	65.8	44.37	56.03	155
Bhatinda	785.3	1180	65.4	71.59	55.98	136
Hoshiarpur	515.9	1735	68.9	43.65	56.91	152
State	11647.4	2454	108.8	82.81	77.55	157
Rank Correlation			0.6224*	.8392**	0.6259*	0.6049*

* Significant at 5 per cent level

** Significant at 1 per cent level.

new area under the plough in some selected districts, a production level of 165 lakh tonnes by the end of Sixth Plan period is not an impossible task.

Table 1

Compound growth rates of acreage, productivity and production of foodgrains in Punjab, 1960-61 to 1979-80

Foodgrains	Compound growth rate per cent per year		
	Acreage	Productivity	Production
Rice	8.53	6.66	15.76
Jowar	-4.18	7.24	1.60
Bajra	-1.95	4.41	2.46
Maize	1.99	1.42	3.44
Wheat	4.00	4.93	9.13
Barley	-0.46	2.83	2.37
Gram	-6.41	0.80	-5.54
Other pulses	-0.52	—	0.11
Total foodgrains	2.51	—	7.97

Rural Credit

The Union Finance Minister said in India there was intertwining between various rural credit institutions. The Reserve Bank of India took a leading role in effecting coordination and integrated growth of all institutions. He pointed out that the excessive conservative posture in the provision of credit would hamper the speedy implementation of public policy. The need of the hour is to pool all the valuable resources, Governmental as well as institutional, to accelerate the pace of development and bring in an improved economic and social order in the foreseeable future.

He suggested that the apex bank should ensure that the financial policies do not discriminate between agencies. Realising the special importance of the integrated rural development, the Government of India had decided to set up a national bank for agricultural and rural development as a national level institution for purveying credit to agriculture, agricultural operations and rural development and for the promotion of the integrated rural development. He stressed that the rural credit should not become a monopoly of the cooperative credit structure. It was necessary that the commercial banking structure should also shoulder the burden of rural development.

Economic Relations Between India and Poland

D. D. Guru*

Polish People's Republic is an important member of the socialist group of countries. The economic relations between India and Poland assumes significance in view of the growing ties between India and the socialist group of countries in the past years. Poland being a member of the CMEA countries, the economic relations between India and Poland has to be seen under the overall framework of the economic relations between India and the CMEA countries. The trade relations and the collaborations in industrial ventures are two important aspects of the economic relations between two countries. We propose to discuss in this paper these two aspects of the economic relations between India and Poland. A brief review of the pace of economic development is also necessary for the proper evaluation of the economic relations between the two countries. The paper, therefore, is divided into three parts. The first part gives the brief review of the pace of economic development in Poland. The second part deals with the trade relations between the two countries. The third part discusses the areas of economic cooperations in the form of joint ventures in the various fields.

I

Poland like India has a long historical past of suffering under various invaders and going through untold sufferings. The foundation of Polish state is said to be laid in the 10th century A.D. when western Slavomites of Polanie unified and laid the foundation of the Polish people. There were foreign aggressions in the early years by Tartars in the east, and Prussians and Lithuanians from the north. In the 14th century Poland was a major power in

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Europe and there was great economic prosperity in the country. The Swedish invasion in 1655 A.D. brought devastations in the country. Hardly had they repulsed the invasion, Poland had to fight war against Turks in the 17th century which brought economic stagnation in the country. The Polish people under the leadership of king Stanislaus could regain their prosperity by defeating the Turks. But Poland had to again face the invasion in the 18th century between 1772 and 1793, and 1795 by Russia, Austria and Prussia which resulted in the partition of Poland three times. She came under Russian monarchy. In June 1919 Treaty of Versailles recognised the independence of Poland. In Sept., 1939 Germany invaded Poland, on 17th Sept., 1939 Russian troops entered Eastern Poland and on 29th Sept., 1939 fourth partition of Poland took place. After the German's attack on Russia, the Germans occupied the whole of Poland. It was occupied by Nazi Germany and suffered casualties under it. The Warsaw uprising in August-September 1944 led to the victory of the people of Poland against Nazi rule. Provisional people's Government on the initiative of Polish Workers Party was created in 1945.

The Polish People's Republic has made tremendous progress in the economic field in the past thirtyfive years. She not only reconstructed the World war II ravaged economy but made positive achievements in the various sectors of the economy. The World War II led to the loss of 40 per cent of all pre-war material assets, as compared to the loss of 0.14 per cent in U.S., 0.8 percent in the U.K. and 1.5 per cent in France. Twenty thousand industrial plants out of the total of thirty thousands; 200 thousand trade enterprises and 85 thousand workshops had been razed to the ground, 75 per cent of railway rolling stock, 55 per cent of horses had been lost in the War.¹ Over the past thirty-five years, however, the industrial production growth rate of Poland has been one of the highest in the world. The per capita output of energy generating raw materials, hard coal in particular, as well as zinc, cotton thread and sulphuric acid in Poland today is bigger than the U.K., Federal Republic of Germany, France or Italy. Poland with an area of 3.12 lakh sq. km and with a population of 33 million is one of the major producers of industrial goods. Poland's industrial

1. On Poland, *Peoples Sector*, New Delhi, Vol. IX, No. 7, pp. 3-5.

production constitutes some 2.3 per cent of world's industrial output. In 1939 Polish industry employed one million workers. After the war it came down to 75,000. But at present there were again 3.9 million workers. The structure of gross national income of Poland is close to the structure of highly industrialised countries. More than half of the national income comes from industry, 10 per cent from agriculture and over 30 per cent from other sectors of the national economy.

Poland has specialised in the production of power plants and energy generating installations, mining machinery and knowhow, automobiles, ships, machine tools, sugar mills and other complete industrial plants, etc. These are also the important items of her export which increased rapidly in the past years covering new markets. All types of installations for power stations of capacity ranging between 25 MW and 360 MW are being produced in Poland. She has recently undertaken the production of 600 MW turbine sets. Poland purchased licence for the production of most important installations like turbines, generators, boilers, coal pulverizers, electrofitters fans etc. Poland has become an important exporter of complete energy generating installations. Poland has also been a successful producers and exporter of machinery. An important feature of Poland's production of mining machinery is that it is not limited to the individual machines or installation but covers entire projects together with construction and separation. There has been also rapid development in Polish motor industry in the last decade. In 1970 Polish output of passenger cars, lorry, and buses amounted to 118,000 vehicles while in 1979 the industry was to produce 440,000 vehicles.²

All these, however, should not give the impression that Poland lags in agricultural development. Rye, wheat, barley, potatoes and sugar beet are the main crops of Poland. It is interesting to note that in spite of Poland being a socialist State among the three sectors in agriculture, individual farms accounted for 85 per cent, State farms 13 per cent and cooperative farm 12 per cent. Poland ranks among the top five world producers of rye, potatoes and milk.³

2. Poland 1944-79. Peoples Sector, op cit, pp 13-15.

3. Zagli, V., India's Foreign Trade, Vora & Co. Bombay, 1973, p 261.

The economic development of Poland has been facilitated because of the well developed infra-structure system. Over the years 1945-1970 the total length of hard surface roads increased from 40,000 km. to 10,3100 km.⁴ There developed navigable waterways covers around 43,000 miles. The electricity produced was 6,610 million kwh in 1947 which increased to 11,850 million kwh in 1952⁵ and in 1975 it reached 97,168 million kwh. The production of electricity during 1975 stood at 86,613 kwh⁶ The installed capacity of electricity for Poland stood at 20 million MW. Poland with the size of the state of Maharashtra produces electricity more than the total production of India.

II

The growing economic prosperity of Poland has led to the growth in its international trade. A large part of her international trade is with the CMEA countries especially with USSR. The trade between India and Poland has also increased rapidly over the years. The real growth in the trade between the two countries has, however, been since the early sixties. We can have an idea about the growth of trade between the two countries from the table giving the total export potential and imports to India.

It can be easily seen from the table that the trade between the two countries has increased tremendously over the years. While the imports increased from Rs. 3.4 million in 1951-52 to Rs. 442 in 1960-61 and to Rs. 458.0 in 1973-74 the exports from India to Poland increased from Rs. 2.7 million in 1951-52 to Rs. 38.7 in 1960-61 and to Rs. 489.0 in 1973-74. There has been further increase in export to Rs. 899.0 millions and Rs. 1129.0 millions during 1975-76 and 1976-77 respectively. The rates of growth of both exports and imports have been higher after 1960-61.

The first inter-Governmental trade was formulated through exchange of letters in 1949 according to which payments for their mutual exchanges were to be made in sterling pounds. They concluded their first long term trade agreement in 1956. In 1958 a special

4. Ibid p. 261.

5. Chambers Encyclopaedia, Vol. II, Volume XI, London, 1959 p. 5.

6. U. N. Statistical Year Book, New York, 1957, p. 364-397.

payments agreement and protocol appended to 1956 agreement provided for switching over to payments in rupees.⁸ The scheme was further liberalised after 1959 when Rupee balances could be utilised for the purchase of Indian or the Polish goods as the case may be. This provision provided great relief to India faced with the problem of foreign exchange crisis in the matter of trade and led to the great boosting up of trade between the two countries.

Table 1
India's Trade with Poland⁷

Year	Imports	Exports	(Rs. Million) Trade Balance
1951-52	3 4	2.7	— 0 7
1956-57	44 4	12 4	— 32.0
1960-61	44.62	38.7	— 5 5
1961-62	91 6	45 1	— 46.5
1965-66	136 7	91.2	— 45 5
1970-71	279.9	221.4	— 58.7
1973-74	458.0	489 0	+ 31 0
1975-76	726 9	899.0	+172.1
1976-77	861.00	1124.4	263.4

There has been a change in the structure of exports and imports in the trading relations between the two countries. This is both with regard to exports and imports. The major items of imports from Poland in the earlier days had been machinery other than electric goods iron and steel. They together accounted for almost 50 per cent of India's imports from Poland. But there has been an increase in imports of electrical machinery, apparatus and appliances, fertiliser manufactured and medicinal and pharmaceutical products. This can be seen from the Table II given below.

It can be easily seen from the table that import of Iron and Steel declined from Rs. 37.4 crores in 1961-62 to Rs. 27 8 crores in

7. Ramchandran, S.—Indi-CMEA Cooperation ; Foreign Trade Review, Vol. X, No. 3., 1975, New Delhi, p. 187.

8. Kopotevesky, V., Economic Cooperation Between CMEA Countries and India, Allied Publishers, Bombay, 1976, p. 63.

Table II
Composition of India's Imports from Poland⁹

(Rs. million)

Commodities	1961-62	1966-67	1970-71
Machinery other than electric	12.7	63.5	62.2
Chemical elements and compounds	6.9	19.7	32.9
Electrical machinery apparatus and appliances	Neg	Neg.	31.9
Sulphur	—	5.2	30.2
Fertiliser Manufactured	—	0.5	45.7
Medicinal and Pharmaceutical products	0.7	6.9	11.0
Iron and Steel	37.4	35.5	27.8
Transport and Equipment	6.6	10.0	17.2
Others	27.3	37.4	29.7
Total	91.6	178.7	279.9

1971-72. On the other hand imports of electrical machinery, sulphur and fertilisers increased from negligible and nil around in 1964-65 to Rs. 31.9 million, Rs. 30.2 million and Rs. 45.7 million in 1970-71 respectively.

There has been growth in the export of oil seeds, cake and meat, tea, iron ore and concentrates, leather etc over the years. We can have an idea about the change in composition of exports of India to Poland between 1961-62 and 1970-71 from the Table III given below.

Table III
Composition of India's Exports to Poland¹⁰

(Rs. million)

Commodities	1961-62	1966-67	1970-71
Oil seed cake & meal	8.4	71.6	106.7
Iron ore and Concentrates	6.1	8.4	22.4
Tea	1.1	10.4	15.8
Jute Manufactures	2.5	0.4	6.8
Mica	6.6	8.8	11.9
Leather	0.1	7.5	11.4
Coffee	0.6	2.2	9.1
Spices	2.4	6.3	10.8
Others	9.3	19.4	27.3
Total	45.1	135.0	221.4

9. Commerce Annual Number 1971, Bombay, 1972, p. 162.

10. Ibid.

The above table shows that there is no major change in composition of exports from India. There has been an increase in the amount of exports of all major items over the years. It is, no doubt, true that the increases in exports of oil seeds, cake and meat have been higher. Thus while such exports constituted hardly 16 per cent of total exports in 1960-61 it became around 50 per cent of total exports in 1970-71.

There is the necessity to finding new areas of exports from India to Poland. One can easily think of export of cotton textiles, handicraft and handloom products, leather footwear and other new items of manufacture like duplicators, ready made garments in addition to export of minerals like iron ore, manganese and mica. Bihar has important role to play in the export of minerals like mica and the leather goods and handloom products. The prospect of the export of silk from Bhagalpur has also got to be explored.

There is similarly great scope of import of electric generating plants, mining machinery, automobiles, ships and various kinds of machine tools. Imports of electric generating plants assume special significance in view of the plan for increasing the size of power generation in the country.

III

The basis of wide ranging economic ties between Poland and India was laid in the agreement on economic, scientific and technical collaborations between the two countries in May 1960. Apart from the Government credit of Rs 231.5 million to India, the agreement earmarked for financing the construction of a number of industrial units in India including coal mines, power stations and enterprises producing various types of equipments. In 1962 Poland gave India a credit of Rs. 57.2 million for two coal mines for the production of mining equipments and special type of concrete and fertiliser plant. Again, Poland provided credit of Rs 92.6 million for financing the import of two turbine generators of 1.20 lakh kw capacity of Koradi thermal power station in Nagpur which was installed in 1967, Poland also concluded an agreement with the Fertiliser Corporation of India under which Poland was to assist in building up the Haldia Fertiliser Plant with the capacity of 16500 tonnes of ammonia, 379,000 tonnes of inorganic phosphate, 60,000 tonnes of calculated soda and 413,000 tonnes of methanol per year.¹¹

11. Koplevalley, op. cit. p. 62.

There are also instances of Polish Government concluding agreements on cooperation with private sectors on commercial basis. The first such agreement was signed on Dec. 1958 between Polish firm BEKOP and private Indian firm Electric Equipment Corporation Ltd. for the establishment of an electric metre factory with annual capacity of 180000 metres. By 1975 various Indian private companies had concluded 20 agreements with Polish industrial units.¹² An agreement was signed in 1960 between Polish organisations and Escorts Ltd for extending technical cooperation for building a motor cycle and scooter plant. Another agreement was signed with this company in 1965 for assistance in construction of a tractor and agricultural equipment plant.

A new chapter on Indo-Polish economic relations has been opened up with the signing of a long-term agreement on economic, industrial and technical cooperation in January 1977. Hitherto the emphasis on the economic relations of the two countries has been on the promotion of trade. Poland's cooperation in the industrial sector has been confined largely to the development of deep coal mines. But the latest agreement has enlarged the scope of cooperations. It is now proposed to utilise the Poland's expertise in the field of agriculture, fisheries and shipping and the development of India's industrial capabilities. There are now greater opportunities for organising production cooperation in respect of machine tools, pharmaceutical and drugs and meat processing. The long term agreement is for ten years and aims at taking advantage of the conditions that have been created improving the Indo-Polish economic relations and adding new dimensions to them. What is contemplated is not merely joint ventures in each other's country in the fields that have been identified but also cooperation in setting up projects in third countries. It is, for example, being contemplated by the two governments to explore the possibility of establishing sugar factories in Gulf countries.

12. Ibid.

Can Budget Provide The Right Climate ?

Virendra Agarwala*

Presenting the union budget for 1981-82, Mr. R. Venkataraman as Finance Minister has rightly asserted that the country must move on from crisis management to growth. He is sure to earn the gratitude of the middle classes and salaried tax payers for the substantial income-tax relief as well as for commendable measures to promote savings and the potential for investment. The Finance Minister has desisted from imposing excise duties in order to prevent escalation of prices though the pre-budget hike in administered prices and the fresh customs levies proposed in the budget will tend to keep the price level buoyant. It is widely recognised that the Government has already raised the prices of drugs and medicine, coal, steel, and petroleum products and passed on the burden of more than Rs. 2,330 crore while the railway budget has imposed a further liability of Rs. 356 crore, the budgetary deficit of Rs 1,539 crore and additional tax burden of Rs. 271 crore will undoubtedly fuel the price inflation. In any case, newsprint, textiles and phones will go still costlier. Though the budget has several positive features but it would be simplistic to believe that it protects growth and ensures price stability. The tax concessions to promote investment are in consonance with the Finance Minister's expressed view that measures need to be taken to ensure that the recovery that has taken place in the latter half of the current year should be fully incorporated into a growth pattern in subsequent years. It is equally true that he has not gone far enough to produce the desired results. The proposed concessions for energy-related industries are equally welcome.

The budget for 1981-82 will yield a net additional revenue of Rs. 271 crore after taking into account the reliefs in direct taxation. The basic instrument for garnering additional revenues is a straight forward hike in customs and levy by five full points. It is obvious that we can no longer afford to pursue a import policy

* Delhi.

in view of the balance of payment deficit amounting to Rs. 2,000 crore in 1980 81 which has led to a significant draw down of foreign exchange reserves. But it will adversely affect the process of rehabilitation and modernation of plant and machinery which is overdue in respect of all major industries. The current financial year is now expected to close with a deficit of Rs. 1,975 crore as against Rs. 1,445 crore estimated earlier. The resource gap estimated at extisting rates of taxation is Rs. 1,810 crore. A moderate dose of new levies would bring in Rs. 271 crore reducing the net deficit to Rs. 1,539 crore on the assumption among other of receipts of Rs. 800 crore from bearer bonds in 1981-82. The anticipated budgetary deficit may be of the order of Rs. 2,400 crore because the Government is not likely to realise Rs. 800 crore and this sum may swell in the usual way to Rs. 3,000 crore by the budget day next year. This means that in the first two years of the Sixth Plan more then 80 percent of the deficit financing prescribed for the five year period will have to be drawn upon while the outlay on the cetral plan in the first two years amounting to Rs. 15,874 crore will be a bare 33 percent of the total, even without adjustment for the fact that the plans arithmetic is based on 1979-80 prices. If the Government is able to take effective action in improving the performance of the infrastructural sectors of power, coal and the railways and bring about an increase in overall production and better distribution, the impact of the deficit in the price level ought to fall within bearable limits. Non-development expenditure continues to grow, the most striking examples being that on defence, subsidies and non-plan loans to the public sector amounting to Rs. 15,100 crore compared with Rs. 13,736 crore in the current year. The Finance Minister has conceded that the threat of inflation has not been fully overcome. The fiscal deficit should be kept within tolerable limits. Time only will show whether this large deficit is within the limits of fiscal prudence or not.

Plan outlays of the Centre and States and Union Territories in 1981-82 are estimated at Rs. 17,479 crore compared with Rs. 14,593 crore in the budget estimates for 1980 81. This represents an increase of nearly 20 percent. The plan outlay of the Centre for 1981-82 is being stepped up to Rs. 8,619 crore from Rs. 7,340 crore in budget estimates for 1980-81—an increase of 17.9 percent.

This will be financed by budgetary support of Rs. 6,309 crore and internal and external budgetary resources of public sector undertakings of Rs. 2,310 crore. Borrowing is to rise to Rs. 2,800 crore from the current year's level of Rs. 2,499 crore and small savings from Rs. 1,100 crore to Rs. 1,259 crore. External assistance, net of loan repayments, is estimated at Rs. 1,379 crore compared with Rs. 1,258 crore in 1980-81. The central plan outlay rises by 17.4 percent in the coming year which, net of price will mean a much smaller growth of plan outlay in real terms. It is an open question to what extent the larger outlay in states sector will be qualitatively satisfactory. The crucial issue in the assessment of growth prospects, it will be granted, is not merely the quantum of financial outlay but more importantly how far the allocated quantum is protected through price stabilisation and the extent to which plan implementation is geared up. The task of achieving GDP growth of even 5 percent in the coming year will be no means easy. We can hardly afford to forget that the financial position of certain public sector undertaking did not show the recovery anticipated at the budget stage. Additional non-plan assistance of Rs. 104 crore to these undertakings has, therefore, become necessary. A shortfall in internal resource generation in the public sector will vitally upset the budget arithmetic on the one hand and improve upon investment for growth on the other, leading in turn to a mismatch in inter-sectoral growth rates. Furthermore if this official assumption goes wrong, the budgetary deficit will rise well beyond the estimated figure of Rs. 1,539 crore. The Finance Minister has pious hopes but the inflationary potential of the budget can hardly be ignored particularly when the full package of policy measures is not sure to result in higher production and increased utilisation of capacity. The economic situation remains so difficult that only a cautious approach can help the economy to move forward on the path of growth with stability and social justice.

It is laudable that the Finance Minister has recognised that lower rate of taxation promotes better voluntary compliance and speeds up the process of growth. The revenue receipts from various taxes have gone up by more than Rs. 495 crore in the current year which has vindicated beyond doubt. The economic survey has conceded that higher tax rates are only increasing tax evasion

reflecting the declining elasticity of tax revenues. But this fact has not been taken to its logical conclusion. The earlier the Government decides to reduce the maximum marginal rate on personal incomes to 50 percent, the better it would be to accelerate the pace of growth and to ensure higher revenues for development activities. It is surprising that the Government has preferred to grant higher interest rates for raising savings to bring some of the money now in the parallel economy back into legitimate channels of saving and investment. It is wrong to believe that a decline in tax rates does not by itself ensure and increase in savings. As things are, the increase in investible resources in the legitimate economy that the present measures are likely to bring about may not make a visible dent in the problem of financing the Sixth Plan. He was expected to reduce subsidies to various sectors, to curtail non-developmental and wasteful expenditure by Government agencies and to tap the surplus incomes of the rich farmers. He has ignored the options and opted for populist measures.

The measures to stimulate savings are mainly in the form of increase in interest rates on fixed deposits and the issue of the new 12 percent interest bearing certificates for six years. It will surely help in raising the saving rate but it proves that the Government finds no other than to persist with the 'dear money' policy which is sure to result in high cost economy. Industrial sickness is rapidly growing largely for the fact that the small and medium—what to say of large sector—are finding it difficult to pay the growing cost of credit while non-availability of adequate and time credit has virtually paralysed the economy. What the Finance Minister has reasonably expected to do is to raise the tax-exemption limit on dividend incomes as well as to grant certain concessions on provident fund, LIC premium and UTI interest income. Whether these interest rates changes combined with the tax relief afforded to middle incomes earners will stimulate savings is a moot question, the answer of which will again depend on the extent to which inflation can be contained.

The increase in prices during 1980-81 up to the end of January 1981 has been 13.5 percent against 20 percent in the same period of 1979-80. The economy remains subject to continuing cost-push pressures including especially the transmission of international inflation

through rising prices of oil and other essential imports. Since these cost-push pressures are likely to persist, the budget has done little to contain the price inflation. Growing fertiliser consumption and expansion of irrigation potential have certainly raised the farm output but the budget hardly contains any proposal which is meant to provide any monetary relief to those living below the poverty line particularly so in rural area. There is hardly any thrust for generating employment potential in the rural areas. The National Rural Employment programme has been provided Rs. 180 crore in the central plan and equal amount is claimed to have been provided by the states against Rs. 340 crore allocated in 1980-81 but this programme of 'food for work' can hardly produce any tangible result in view of the poor food procurement. These resources are sure to be squandered by the bureaucracy and the rural rich, that their fruits will never be percolated to the lowest strata of society. The Integrated Rural Development Programme costing Rs. 198 crore will help 3 million families to go above the poverty line in 1981-82. But the price inflation of the size of 20 percent will accentuate poverty to such an extent that it is likely to place at least 10 million people below the poverty line. The budget can hardly carry any conviction so far the rural poor and slum dwellers are concerned. We can hardly derive any satisfaction so long as the impact of fiscal concession is not felt by the large mass of Indian people.

The union budget for 1981-82 has been widely applauded largely for the reason that it has provided for raising the exemption limit for income-tax payers to Rs. 15,000 thus the elimination of a further 1.4 million persons from the income tax paying liability. There was no question about the extent to which the burden imposed on the tax collecting machinery by the large number of low income tax payers was contributing to inefficiency in administering the tax laws for those with much higher incomes. These measures may well assist in reducing the incidence of evasion in the country. The particular adjustment in the nil tax slab and in the tax rates that the Finance Minister has proposed for incomes up to 30,000 indicate that he is serious about providing a substantial relief to low-incomes tax payers since nil-slab has now been sharply raised from Rs. 8,000 to Rs. 15,000. Rate of IT on Rs. 1,5000 to Rs 25,000 slab will be 30 percent and 34 percent on slab rise up from Rs. 25,001 to 30,000. Both the

rates are considered quite steep. It is equally interesting that he has kept the rate at the higher slabs unchanged. In view of the subsequent rise in prices and as a means of relief to salaried tax payers the rates of standard deduction has been raised to 20 percent subject to a higher ceiling of Rs. 5,000. While the CDS will continue for another two years, the present limit of Rs. 50,000 for estate duty which was fixed in 1958 has been raised to Rs. 1.5 lakhs, the same as under the Wealth Tax Act. For purposes of this impost, the value of one residential house will henceforth be calculated at the lower rates prescribed for computing the wealth tax and not at the market rate as at present. It is a welcome measure of equity. The reduction in surcharge by five percent in corporation tax by itself does not amount to much but it is an earnest of the government's good intentions and is bound to shore up investors' confidence by giving share prices a further boost. All such measures are sure to make the budget quite popular among the vocal people because most of the measures are guided largely by political considerations but it is too early to predict whether it would place the economy on the path of growth and social justice.

CHINA'S BUDGET DEFICIT

China's budget deficit is expected to amount to about \$53 billion in fiscal year 1981 despite the Government's plans to substantially curtail fiscal outlays. The Government has announced that, in an effort to ensure slow but steady growth, fiscal outlays of the People's Republic will have to be reduced by \$9.8 billion, to a total of \$64.6 billion. This reduction will be achieved primarily through a 45 per cent curtailment of capital construction outlays, to about \$20 billion, compared with expenditures previously estimated at \$36.4 billion, and through a reduction in defense and administrative costs. In addition, the Government plans to curtail oil and coal production according to the proven reserve recovery rates. In announcing the budget reductions, Deputy Prime Minister Yao Yilin noted that, despite declines in heavy industry output, the value of industrial production rose by 8.4 per cent in 1980, exceeding government targets. The output of light industrial goods advanced by 17.4 per cent in 1980, compared with a targeted increase of 8 per cent. He also noted that production of grains amounted to 316 million tons in 1980, a level that is second only to the record 1979 harvest. Cotton output amounted to 2.6 million tons—the largest crop since 1949—representing a 20 per cent increase over the 1979 level.

New York Times, March 1.

Development of Women Entrepreneurship in India—Problems and Prospects

O D Heggade*

Women labour force, nowadays, has been confronted with chronic unemployment, underemployment and seasonal unemployment in almost all developing countries. India is not an exception to this. Throughout the developing world, underemployment and seasonal unemployment are large among women job-seekers because of the underdeveloped nature of agriculture and allied activities as well as a host of small scale industries, village and household units. In recent years, chronic women unemployment is also on an increasing scale because of the rising education, gradually increasing aptitude among women to take-up jobs, discrimination against women in labour-market and of economic necessity etc.

The 27th Round of the National Sample Survey has shown that the chronic unemployment for women job-seekers is lower than the male job-seekers. It has further pointed out that the weekly and personday unemployment for women workers were 5.9 and 11.4 per cent respectively which were much greater than for men workers (viz 3.6 and 7.1 per cent). Further it has been pointed out that the higher rate of unemployment among women has resulted in the disturbing fact that nearly 40 percent of total unemployment today (8.1 million personyears) is accounted for by women. Their share in unemployment (about 40 percent) is thus higher than their share in the labour force (about 33 percent).¹ This amply reveals that the relatively greater unemployment and underemployment burden rests with the women labour force, further accentuating the socio-economic deprival of our women folk.

Table 1 reveals the growth of chronic unemployment of women between 1972 and 1979. It indicates that the total number of women job-seekers has been rising steadily over the period.

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Table 1. Job-seekers (all categories) men and women on the live registers of employment exchanges

At the end of the year	No. of job-seekers (in million)			Percentage increase over previous year		
	Men	Women	Total	Men	Women	Total
1972	6.13	0.76	6.89	—	—	—
1973	7.30	0.92	8.22	19.0	20.0	19.2
1974	7.46	0.97	8.43	2.2	6.0	2.6
1975	8.20	1.12	3.32	9.9	15.6	10.6
1976	8.55	1.23	9.78	4.3	9.4	4.9
1977	9.51	1.41	10.92	11.2	14.6	11.0
1978	11.01	1.67	12.68	15.7	18.5	16.1
1979	12.43	1.90	14.33	13.4	13.8	13.0

Source : Adopted from : Bhandari, Aravind ; Missing Manpower Management, Commerce : Vol. 141 : No. 3608 : Bombay ; August 16, 1980.

As is shown in Table 1, the level of total unemployment both male and female, has increased from 6.89 million to 14.33 million between 1972 and 1979. The male unemployment was 6.13 million in 1972, rose to 12.43 by 1979. And the female unemployment, which was 0.76 million in 1972 increased to 1.90 million by 1979. The chronic unemployment in the country has been steadily rising—the rate of increase in female unemployment is more compared to male unemployment (see annual percentage rise).

Table 2 shows the total volume of educated unemployment in India between 1972 and 1979. It shows that during this period, male unemployment has almost doubled whereas the increase in female educated unemployment is almost phenomenal (by three times).

As it could be seen from Table 2, the level of total educated unemployment has increased from 3.27 million in 1972 to 6.94 million in 1979 (June). It could also be observed from Table 2 that the level of educated male and female unemployment has grown phenomenally i.e., from 2.82 to 5.81 million and 0.45 to 1.13 million in a period of just seven years (1972-1979).

Table 3 explains the rural-urban distribution of chronic unemployment by sex in our country. It reveals that the chronic unemployment of both sexes is predominant in our urban economy. This was partly due to growing incapability of our cities and towns to

absorb the increasing labour force and partly because of rural-urban migration of labour in search of better work opportunities.

Table 2
Educated Job-seekers
(Matriculates and above)

At the and of the year	No of educated job seekers on the live register (in million)			Percentage increase over the previous year		
	Men	Women	Total	Men	Women	Total
1972	2.82	0.45	3.27	—	—	—
1973	3.38	0.52	3.90	19.6	16.5	19.2
1974	3.57	0.60	4.17	5.9	14.3	7.0
1975	4.09	0.71	4.80	14.4	19.2	15.0
1976	4.32	0.78	5.10	5.6	9.5	6.2
1977	4.84	0.90	5.74	11.8	13.2	12.4
1978	5.40	1.05	6.45	11.5	16.7	12.3
1979 (June)	5.81	1.13	6.94	7.6*	7.6*	7.6*

Note : * Percentage increase in the period January-June 1979.

Source : Adopted from : Bhandari, Aravind, Missing Manpower Management, Commerce ; Vol 141 ; No. 3608 ; Bombay ; 16th August 1980.

Table 3
Chronic Unemployment
Rural-Urban Distribution by Sex
(in million)

Year	Rural			Urban			Total (4+7)
	Male	Female	Total	Male	Female	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	
1971	1.41	0.32	1.73	1.45	0.43	1.88	3.61
1973	1.49	0.34	1.83	1.57	0.46	2.03	3.86
1978	1.63	0.37	2.00	1.83	0.54	2.37	4.37

Source : Computed from Table 4.1 : Draft Five Year Plan ; 1978-83 ; Government of India ; Planning Commission : New Delhi ; p. 93.

As it could be seen from Table 3, the rural and urban chronic unemployment are increasing in the country. This alarms the growing pathetic conditions of our young generation in these years. The male unemployment in rural areas has increased from 1.41 million in 1971 to 1.63 million in 1978 whereas the female unemployment has risen from 0.32 million in 1971 to 0.37 million in 1978. Similarly, the urban male and female unemployment has increased from 1.45 to 1.83 million and 0.43 and 0.54 million as on 1971 and 1978 respectively.

Among other things, the practice of discrimination against women job-seekers in labour market is also partly responsible for rising women unemployment, particularly educated women joblessness in the country. This was due to the prejudice "by men who believe that women constitute an inferior sex physically and mentally. With this mental conditioning, the women are denied job opportunities despite their qualification and competence".² This type of tendency on the part of male entrepreneurs has resulted in restricting the work opportunities for women labour force. This type of unhealthy situation exists in modern India because of "(1) prevailing social attitudes which tend to regard women unfit for most occupations; (2) resistance from employers and in some cases male workers to appointment of women at higher levels; (3) denial of on-the-job training opportunities for women in higher skills; and, (4) ignorance of most women regarding jobs outside the conventional classification".³ The rampant women unemployment is also due to lack of adequate skill formation as well as non-availability of required facilities for women workers in medium and small towns and cities as well as in the countryside. Therefore, the urban female unemployment has begun to be localized into respective urban agglomerations and concerned townships. On the other hand, the rural female unemployment has been due to deteriorating village industries and crafts as well as the inability of rural women to seek jobs elsewhere because of social and family impediments and inconveniences.

Need for and Role of Women Entrepreneurship

In the post-independence era, the women employment has steadily grown in our country. But the process of modernization in India has been taking place on the remains of feudal set-up

and laissez-faire economy for the last three decades. Thus, a socio-economic set up based on feudal-cum-laissez-faire elements always discriminates against weaker sections. Socially deprived and economically dependent womenfolk like ours cannot command equal shares in various socio-economic opportunities including employment. Hence, there is a need to create a new generation of women entrepreneurship. The need for creating women entrepreneurship also arises because of the indispensability to promote wage employment. So, at present we need a policy for promoting women self employment and entrepreneurship by providing some amount of statutory protection. This is very essential because of the limited ability of public and private sectors to absorb the growing women labour force as well as the high ratio of underemployment compared to open chronic unemployment among women labour.

The need for a protective and more dynamic women self employment policy also arises due to the intensified competition which women labourers have to face with their male counterparts as well as lack of confidence superimposed on them by the deep-rooted socio-psychological and cultural impediments in our society. Efforts to remove these obstacles in this way and provide some protection to nurse them until they establish themselves in the concerned production and/or business field will definitely create an environment conducive for the growth of women entrepreneurship. Such newly created women entrepreneurship would transform the female job-seekers into job-producers. Development of women entrepreneurship would serve to uplift our socially deprived, economically dependant female section of our population. Hence, the role of women entrepreneurship is to act as a instrument of socio-economic change.

The well developed women entrepreneurship would result in (1) encouraging new kinds of productive activities in different spheres of growth process ; (2) promoting the entrepreneurial skills which would help to fill the entrepreneurial dearth of developing countries ; (3) solving the poverty and unemployment of the under-developed countries ; (4) inducing the growth of selfemployment in the country concerned ; (5) the promotion of viable and self-sustaining women entrepreneurship, if organized in terms of co-operative movement exclusively for women, will encourage the self-help process

for solving our socio-economic ills ; (6) gradual redress of lop-sided distribution of wealth and income; and (7) the increased women labour organizations to protect themselves etc.

Moreover, the better organized and well-developed women entrepreneurship in the country can be a source of inspiration and a web of modern activities which would promote the growth of the economy and also act as a catalyst in carrying out a crusade of attaining equality in every realm of human activity with men.

Development of Women Entrepreneurship

Women entrepreneurship can be developed by two ways ; (1) making more and more women to take up self-employment. and (2) by organizing more women co-operatives

Though, at present, there is a policy for promoting self-employment and the setting up of co-operatives to ensure more gainful regular employment opportunities among unemployed and other weaker sections of our society, the problem of developing women entrepreneurship cannot be tackled by it legitimately because of the very distinctive socio-economic conditions of womenfolk. Therefore, a separate policy for the development of enterprising skills among women shall have to be devised and implemented.

Such a type of policy should take into account the present socio-economic problems of women job-seekers and find out a host of alternative means by which their grievances can be redressed. Moreover, a separate policy for promoting women entrepreneurship should provide a dynamic leadership for achieving social integration in our community. Hence, any policy which deals with the development of women entrepreneurship should concern itself with ; (1) the formation of modern types of skills among women ; (2) the better utilization pattern of skills of women workers ; and, (3) resolving the problems faced by women entrepreneurs.

In developing women entrepreneurship in self employment sector and on co-operative basis, the voluntary service organizations like Rotary Clubs, Lion's Clubs, Youth Societies, Universities, Women's Organizations and Associations and City Chambers of Commerce and Industry and City Productivity Councils etc can play a dominant role apart from those official bodies like public sector banks, district industrial centres, State and District level co-operative organizations

whose services should be essentially most important. The role of voluntary service organizations is 'educative' whereas the other public and co-operative organisations directly bear the responsibility of facilitating the rapid growth of women entrepreneurship. In other words, in inducing the development of women entrepreneurship, the voluntary organizations can play promotional role whereas the others shall have to play the implementational role.

Problem of Skill Formation

The problem of skill formation and utilization of women shall be resolved by adopting suitable manpower policy. A policy for skill formation among women shall enable them to seek jobs on regular basis within the private and public sectors of the economy and also in the self-employment sector. Therefore, "women must become their own employers. They must unite and unionize. It is only as a union that they shall be able to assemble, consolidate and assert the power of their numbers—48 percent of the nations population".⁴ That means, in order to encourage the better utilization of women labour, they should grow more as their own entrepreneurs and to acquire more strength they have to organize themselves.

The rising female unemployment and a large concentration of women workers in low-paid professions and jobs can be traced to the phenomenon of low skill formation among them. The low skills and acquisition of a more general education have been due to (1) restrictive social and cultural attitudes among parents and by our society to provide technical education to women ; (2) lack of technical education facilities exclusively for women. The existing few women polytechnics are urban based and existing in large and medium sized towns and cities. Thus, the bulk of women population living in a large network of small towns and rural areas are deprived of the facilities for technical education ; and (3) rising cost of technical education. The cost of providing medical and engineering education has gone up considerably from time to time. Hence, a large number of middle and low income group families have meagre accessibility for higher technical education ; (4) sociologically, the prevalence of evils like dowry system and the difficulty of finding a perfect match for a technically qualified girl make parents as well as the

young women to take easy courses ; and (5) our educational system is not sufficiently job oriented etc.

Therefore, the skill formation among women has been faced with various social, economic and educational impediments. In order to foster the process of diversified and broad based skill generation these obstacles shall have to be removed. In this regard, the Government and voluntary service organizations can play a vital role.

The Government through its educational strategy should create increasingly diversified skills among women folk. It should set up the technical education centres in large number in our small cities and rural areas. There should be integration between female education planning and employment planning. The voluntary service organizations like women's clubs, youth associations, citizen's forums etc can undertake the job of persuading the parents to provide job-oriented education to their daughters. The success obtained in this will enhance the female involvement in educational institutions. The city Chamber of Industry and Commerce, City Productivity Councils, and Small-Scale Industries Associations etc can also organize field level camps and programmes to identify the prospective women entrepreneurship and by providing the suitable information and guidance, they can make these women to take new kinds of business enterprises.

Problem of Skill Utilization

Various types of restrictive practices, localization of women unemployment, lack of technical education and inadequate spread of literacy etc have been accentuating women worklessness in India. To remedy this, promotion of self-employment among women can be a effective measure.

A self-employment policy for women should motivate itself at two things : (1) creation of local women entrepreneurship to take up productive activities at individual level ; and (2) promotion of local women entrepreneurship by organizing women co-operatives.

The local or indigenous entrepreneurship is almost non-existent in relatively very backward areas and among backward classes of our country. The growth of local entrepreneurship which took place since planning is by and large restricted to organized sector by occupation-wise and spatial-wise. Thus, the emergence of new indigenous entrepreneurship has spread most unevenly among different

areal pockets as well as social groups of our national economy. Womenfolk is also one among those backward social groups which are void of entrepreneurial talents and skills. Hence a policy to develop the entrepreneurial talents and skills among women would definitely revolutionize the overall living pattern of women.

In the earlier draft VI plan (1978 83), a more realistic approach has been outlined about promoting female self-employment, whereas the new VI plan (Revised) 1980-85 has not spelt out anything in specific about this. However, the policy towards self-employment for women should proceed on the lines suggested by Draft Plan 1978 83. It observes that, "in order to promote self-employment and small-industry employment among women, the most crucial requirement is that the allocation of co-operative and commercial bank credit and other aid (training, technical assistance, marketing facilities, hire/purchase of machinery, sheds in industrial states etc) a reasonable share is available for potential women entrepreneurs and women co-operatives employing a majority of women worker".⁵ Therefore, at present, we need a comprehensive policy for developing women entrepreneurship both at individual and co-operative level.

The problems regarding the systematic utilization of skills of women labour ; (1) transformation of women psychology from social deprival and economic dependency to that of risk bearing and attaining economic independence and social equity ; (2) mobilization of women workers to organize in terms of co-operatives ; (3) preparation and dissemination of new productive activities which women entrepreneurs can take up , (4) co-ordination of the activities of financial and other organizations concerned with promotion of self-employment etc.

At present the self employment schemes are run by State Governments. There are many impediments in the way of promoting self-employment schemes. These impediments are sometimes insurmountable, even by male entrepreneurs. Hence it is very necessary to implement a separate protective policy for promoting self-employment among women. This may be done jointly by the State and Central Governments. On this, it is very interesting to note the observations made by a official spokesman of our Central Government i.e., ".....the limited range of facilities available at the industrial training institutes, conservative attitude of banks to young aspirants

without economic and social backing and the devouring mentality of the big houses impose severe constraints on the growth of small units run by the educated unemployed... ..things cannot improve unless there is a bold initiative in the form of centrally sponsored schemes".⁶ This amply shows the need for evolving self-employment programmes on more sound lines with a direct involvement of union government and also the necessity of removing the obstacles in the way of promoting new entrepreneurship in the country.

The growing burden of unemployment on weaker sections shall be resolved with proper effort. Women also being one of the weaker sections in our country, the highly productive jobs should be made available to them. The Governments in India both at the Centre and the State, were not serious to develop entrepreneurship among weaker sections until recently. They have often succeeded in gaining protection under 'make-believe' game. It is because that the "...political system called 'Indian Democracy' finds it more convenient to function the soft way which is easy to organize and simple to operate than any scheme generating entrepreneurship".⁷ Moreover, nowadays, various State Governments have implemented various schemes of supplementary work programmes. Through these schemes some amount of unemployment compensation has been provided to the chronically unemployed. Even from these types of schemes the skilled unemployed women have not benefited. And, no doubt these types of supplementary work programmes can supplement the mainstreams of employment generation in any economy in a transient manner. So the main thrust should be on promoting the main avenues of employment creation. The creation of self entrepreneurship among women can provide a regular stream of job creation in the country.

At present, the participation of women in co-operative movement is very meagre. This shows the lack of awareness as well as the high degree of backwardness of womenfolk in our country. It has been remarked that, "the participation of women in co-operatives, the picture is rather more disappointing in respect of the number of their co-operatives and even in their membership of general co-operatives. The total number of women co-operatives in the country is about 3,740. The figures of women members in co-operatives are not available but the generous estimate would be that their membership will be round one million i.e., 1 per cent of

the total membership of all times of co-operatives in the country (or may be even less than 1 per cent).⁸ Any policy which is motivated to develop the women entrepreneurship should take cognizance of the prevailing conditions about the women participation in co-operatives. And among the women co-operatives, the thrift and service co-operatives (2279) and industrial co-operatives (1182) are relatively in large number, whereas consumer co-operatives (220) and multi-purpose co-operatives (44) are in small number and in certain other lines of activities and services like dairy, farming, poultry, housing, fisheries, etc are just nominal i.e., just one or two. Therefore, from the view point of promoting women participation in general co-operatives and development of women co-operatives to induce entrepreneurship, it is necessary to rethink about the working of our co-operatives.

Hence, it is indispensable to develop women co-operatives in rural and urban areas alike. The women production/sales oriented co-operatives can come up in a host of activities and services like children's goods, handicrafts, horticulture, sericulture, weaving, pot-making and establishing sales co-operatives in the field of marketing of goods produced by small-scale units, private industries, etc.

In order to set up women co-operatives, liberal assistance—financial and technical—should come from public sector banks and State Departments of co-operation and Industries. The National Co-operation Training Institute (NCTI), National Co-operative Council (NCC) etc. can assist the efforts of State Governments to set up women co-operatives.

An effort to utilize the skills of women workers in India today necessitates the growth of entrepreneurship in them. To achieve this objective, there shall be a comprehensive policy for promoting women entrepreneurship at individual and co-operative levels.

Problems of being in business

The general problems faced by women entrepreneurs in terms of self-employment and co-operatives are many. The problems of quality control, labour recruitment, marketing packaging, sales promotion, accounting and book-keeping, wage-fixation etc are to be tackled by them most effectively. In this regard, the State Governments can arrange the training programmes with the help of co-operation of colleges, universities, Labour, Co-operative and Industry Departments, Public Sector banks etc. In the training camps, arranged

by the State in collaboration with all these institutions, efforts should be made to throw light upon programme and policy co-ordination as well as efficient management techniques of the firms. The training and knowledge disseminated through periodic programmes should serve as practical guideposts for young female entrepreneurs. This will help to develop skill formation and utilization and augment production in the country.

Conclusion

The growing female unemployment and poverty in India can also be tackled efficiently by the way of developing women entrepreneurship. The progress attained in creating entrepreneurship among young women would enable them to attain socio-economic equity and contribute their mite to the prosperity of the nation

The impediments in the way of developing women entrepreneurship in the country are very intricate and complex. They are of social, cultural, economic and institutional in nature. Hence, in order to remove these impediments, there is a need for 'comprehensive women entrepreneurship policy. The development of women entrepreneurship should be the major target group in our employment planning in 1980's with an increased participation of Central and State Governments. Hence, it could be said in brief that promotion of women entrepreneurship could help the development of the socially and economically weaker section like women.

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Regional Inequalities in Himachal Pradesh

H. S. Parmar*

With the integration of 30 erstwhile Panjab hill states Himachal Pradesh came into being as a centrally administer territory in April, 1948. Later Bilaspur, another princely hill state, was also merged with it in April, 1954. The organization of Panjab state resulted in the merger of the hilly areas of Panjab (districts of Kulu, Kangra, Simla, Lahaul & Spiti, and parts of Hoshiarpur, Gurdaspur and Ambala Districts) with Himachal Pradesh on November 1, 1966. Himachal Pradesh, finally, earned the status of a full-fledged state in 1971.

Himachal Pradesh, mainly a hilly state with a total geographical area of 55.7 thousand sq. kms, is inhabited by 34,60,434 persons (1971 census), the density of population being 62 persons per sq. k m. The growth rate of population over the last ten years (1961-71) has been about 23.04%. Over ninety-three per cent of the total population of Himachal Pradesh inhabit in the rural areas and about 76% of the working population are dependent upon agriculture.

For the present study the state of Himachal Pradesh has been divided into three district-wise regions on the basis of their more or less identical topography, land-use pattern, geographical distribution of population in the following pattern.

Region	District	Geographical Area	Population (1971 census)	Density of Population per Sq Km.
I.	Chamba, Kulu, Lahaul & Spiti and Kinnaur	32,198 (57.83)	5,20,977 (15.06)	16
II.	Mandi, Bilaspur, Kangra, Una and Hamirpur	13,582 (24.40)	20,37,177 (58.87)	150
III.	Simla, Solan and Sirmur	9,893 (17.77)	9,02,280 (26.07)	91

Figures in brackets show percentage of the total.

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* Data used are from various publications of the Directorate of Economics and Statistics, H. P. Government.

1. Resource Endowment

1.1. Man Power :

Regions I, II and III constitute 15.06%, 58.87% and 26.07% respectively of the total population of the state. The density of population is highest in Region II. As regards urban population, Regions I, II and III account for 12.24%, 43.97% and 43.79% of the total urban populace. The urban population has gone up by 11.83%, 52.61% and 31.56% for respective regions.

Out of the total (12,76,632) workers, Region I, II and III account for 19.4%, 20.6% and 30.0% per cent respectively (Table 1.1). Occupation-wise, cultivators constitute the largest part of total working force. Region II account for 50.6% of total workers and

Table 1.1
Occupational Distribution of Workers (1971 census)

Region	Total Workers	Cultivators	Agriculture Labourers	Household Industry.
I	2,41,877 (19.4)	1,86,959 (20.7)	6,715 (12.6)	3,964 (11.9)
II	6,47,486 (50.6)	4,42,973 (49.0)	30,176 (56.4)	21,682 (63.3)
III	3,89,269 (30.0)	2,73,341 (30.3)	16,493 (31.0)	7,553 (22.8)
State	12,78,642 (100)	9,03,273 (100)	53,344 (100)	33,199 (100)

* Figure in bracket show the percentages of the total.

49.0% of the total cultivators. The same region accounts for highest percentage of agricultural labour and those engaged in household industries.

1.2. Agriculture

Agriculture is the mainstay of the people of this State though farming conditions are different from those of the plains. The farmers have to fight against such heavy odds as severe climatic conditions, difficult hilly terrain and transportation difficulties, etc. In spite of all this, a few areas of the State are as productive for foodgrain production and horticulture as any other region of the country.

Region II has the claim to be termed as 'agriculture belt' as it accounts for more than half of the total sown and cropped area

Table 1.2
Area under Agriculture (1975-76)

Region	Net area sown '000 Hectares (% of total)	Total area cropped '000 Hectares (% of total)
I	85.0 (15.2)	129.3 (14.0)
II	316.7 (56.7)	534.8 (57.9)
III	156.1 (28.1)	259.5 (28.1)
State	557.8 (100)	923.6 (100)

of the state. (Table 1.2). At the same time Region III may be called 'horticulture belt' if table 1.2 A is any indicator.

Table 1.2.A
Area under Fruit Crops (1978-79)

Region	Area under fruits (Hectares)		Total Production (M. Tonnes)	
	Apple	All fruits	Apple	All fruits
I	12,866 (31.7)	17,482 (21.8)	36,718 (30.1)	39,832 (29.0)
II	6,801 (16.7)	27,392 (34.1)	3,816 (3.1)	11,016 (8.0)
III	20,988 (51.6)	35,469 (46.1)	81,362 (66.8)	86,378 (63.0)
State	40,655 (100)	1,37,226 (100)	1,21,896 (100)	1,37,226 (100)

* Figures in brackets show the percentage of the total

In Region I agriculture is most uneconomical because of very small size of 'holdings' and an almost total lack of irrigation facilities

and mechanization. There does not seem to be any solution to this problem except for a drastic change in land-use pattern in favour of horticulture. This process of change in land-use pattern in itself is confronted with many intricate problems.

Apart from all this, Himachal Pradesh is rich in natural resources, viz., forests, water resources (especially) for power generation, mineral herbs, etc., but these resources have till now remained unexploited. At present there is little to emphasize about these untapped and unexplored resources in relation to regional inequalities.

2. PUBLIC UTILITY SERVICES

As a strategy for hill-area development, the expansion of infrastructure as a precursor of development is too well established to make a case for it. The socio-economic infrastructure is essential primarily to open-up the hilly and backward regions and to make them receptive to outside changes.

2.1. Education

Education as a tool of socio-economic change is much more important. Himachal Pradesh, fortunately, has reasonably good network of educational institutions, but regional disparities do exist (Table 2.1.). In absolute terms Region I lags far behind in the

Table 2.1.

Distribution of Educational Institutions (1976-77)

Region	% of total primary schools	% of total middle schools	% of total H/Hr. Sec. Schools	% of total Colleges & other Inst.
I	20.9	16.8	13.1	8.0
II	47.7	52.1	56.5	44.0
III	31.4	31.1	30.4	48.0

availability of educational institutions as only 16.8% of total middle schools and 13.1% of high and higher secondary schools fall in this region. It appears that a much bigger share has been given to Region, II and III in this regard. But these percentages may not be representative of the fact as the percentages of total population for each region vary drastically.

Table 2.1.A
Availability of Educational Institutions

Region	Population per		
	Primary School	Middle School	H./Hr. Sec. School
I	647	3,405	8,140
II	1,106	4,239	7,408
III	746	3,177	6 096

As shown by absolute figures of the earlier table (Table 2.1.) the availability of these institutions is disproportionate in Region I as against Regions II and III, though in contradiction to these, population-wise availability is in favour of Region I (Table 2.1.A). Evidently, an educational institution has to serve greater number of people in Regions II and III. But still the literacy percentages (Table 2.1.B) are highly against Region I.

Table 2.1.B

Region	%age of total literates	Literacy (percentage) (1971 Census)
I	10.5	22.2
II	65.1	35.3
III	24.4	29.9
State	100.0	31.9

Out of a total of 11,05,825 literates, 65.1% (72,02,03) are in Region II. At the same time the literacy rate (35.3%) is highest in Region II, which, incidently, is higher than the State figure.

2.2, Health Services

Providing for the health facilities to the people is one of the important functions of a welfare-state. Adequate medical and health facilities not only bring down the death rate but they also help in raising the efficiency of labour.

The data of Région-wise distribution of primary health centres and hospitals and the beds available (Table 2.2) show a concentration in favour of Regions II and III, but the availability of these institutions and beds per population in favour of Region I (Table 2.2.A)

are highly against Region II. There is one hospital or dispensary for every 6,447 persons in Region II whereas Region I & III have one for each 3,361 and 3,728 person respectively. The availability of beds is more unfavourable to Region II.

Table 2.2.

Region	Hospitals and dispensaries (% of total)	(1976-77) Beds available (% of total)
I	21.7	16.3
II	44.3	36.7
III	34.0	47.0

Table 2.2.A

Region	Population per Hospital and dispensary	Bed
I	3,361	731
II	6,447	1,271
III	3,728	439

2.3 Road Transport

Roads are the life-lines of hilly regions. They help in the opening-up of 'mini-economies' of the rural areas and make them more receptive and sensitive to the changes taking place out-side the regions besides providing direct economic benefits.

The Region-wise distribution of road-transport facilities is as follows :

Region	Motarable road double lane (% of total)	Motarable single lane (% of total)	(1976-77) Jeepable road (% of total)
I	29.3	17.4	29.0
II	35.8	50.9	31.8
III	34.9	31.7	39.2

The Region-wise distribution of road transport shows a bias in favour of Regions II and III. Keeping in view of the total geographical

area of the Region, the availability of road transport facilities is higher in Region II. This is probably due to the fact that the terrain of this Region differs from Region I and III and the cost of road construction is relatively low.

2.4. Rural Electrification

The tempo of rural electrification is to a great extent related to the net work of road transport. The non-availability of transport facilities has been one of the main factors for slackened rural electrification programme in this State.

Table 2.4

Region	Total no. villages	No. of villages electrified (as on 31.3.1978)	% of total village electrified
I	1,576	564	35.8
II	9,850	4,364	44.3
III	5,490	2,825	51.5
State	16,916	7,758	45.8

Of the total 7,753 villages electrified in the state as much as 92.8% fall in Regions II and III (Table 2.4).

2.5. Banking Facilities

Region-wise distribution of banks also show considerable variations. As many as 85.8% of the banks in the state are in Regions II and III. The Region II alone has 48.3% of total banks (Table 2.5).

Table 2.5

Region	Total No. of banks	% of total banks	Deposits (Rs. in Lakhs)	% of total deposits	Total Advances (Rs Lakhs) % of Total
I	34	14.2	670	7.4	120 (7.5)
II	115	48.3	4,417	48.4	521 (32.2)
III	89	37.5	4,039	44.2	977 (60.3)

Region I forms the largest geographical area of the State but is thinly populated and in terms of the population it is the smallest. This Region lags behind in almost all the public utility services. The statistics may put this Region at an advantage in case of a few services, like medical and educational facilities available per population. But one has to keep in view other factors like the density of population and geographical conditions etc. Average statistics-wise one institution may cater to the needs of the same number of persons, but the real benefit of such an institution is much less in a thinly populated area. Thus arises the contradiction and unrepresentativeness of simple averages, as the same kind of institution is more advantageous in a thickly populated than in a thinly and sparsely populated area.

Secondly, every region cannot be assumed to be identical and homogenous in totality. Further as here, each region of the State has sub-regions or pockets of isolation and some of these lag behind other parts of the Region. In each Region, the public utility services are available generally in urban and semi-urban and the 'peripheral inner-circle' of urban centres. The interiors, irrespective of the Regions are still isolated and lack all these facilities. So, to meet the end result of service to the people, a more intensive net-work of these services may be provided in 'difficult areas', though the task is a challenging one.

EMPLOYMENT EXCHANGE STATISTICS

Year/Month	Average No. of registra- tions during the period	No. of appli- cants on the live register at the end of the period	Average No. of employers using the exchanges during the period	Average No. of vacancies notified during the period
	(000)	(000)	(000)	(000)
1	2	3	4	5
1951	115	329	6	41
1971	428	5,100	13	68
1972	486	6,896	13	72
1973	512	8,218	13	73
1974	431	8,433	11	56
1975	455	9,326	11	57
1976	468	9,772	13	70
1977	444	10,924	12	67
1978	512	12,678	13	69
1979	511	14,334	13	73
1980—January	433	14,438	13	69
October	484	15,953	13	65

Source ; Directorate General of Employment and Training, New Delhi.

An Evaluation of the Working of the Marginal Farmers and Agricultural Labourers' Development Agency in the District of Bankura, West Bengal

M. G. Ghosh*

The concern for extending benefits exclusively for the weaker sections in the rural areas was felt during the Fourth Plan period. To quote the Draft Plan: "Special attention needs to be paid for implementing and extending the benefits of Plan programmes for the amelioration of the conditions of the handicapped and the weaker sections of the society".¹ Provisions were therefore made in the Plan to introduce some special programmes for enabling these sections of the people to raise their incomes. Accordingly, the programmes of Small Farmers' Development Agency (SFDA), Marginal Farmers and Agricultural Labourers' Development Agency (MFALDA), Crash Scheme for Rural Employment (CSRE) and Drought Prone Area programme (DPAP) were initiated in the Fourth Plan. All these programmes were taken up during Fourth Plan period under the central sector and later extended in the Fifth Plan period except the CSRE which was sanctioned for a period of three years.

The objectives of these programmes were to promote economic viability of the weaker sections and set them on the path of sustained development. The course of action was to make special arrangements for supplying credit, material inputs and technical know-how for increasing crop production and developing animal husbandry. The programmes also included construction activities, such as irrigation works, road buildings, etc., to provide employment to agricultural labourers.

* Agro-Economic Research Centre, Viswa-Bharati, W. B.

1. Planning Commission, Govt. of India : Fourth Five Year Plan—
A Draft Outline 1966, P-36.

The present study is confined to the district of Bankura where the MFALDA was launched in the year 1971-72. The study is based on data taken from three studies^a conducted by the Agro-Economic Research Centre, Visva-Bharati, during the period from 1972-73 to 1972-74. The total number of sample households was 48, —42 households taken from dug-well schemes and 6 households from dairy schemes. The samples were taken from two development blocks, namely, Gangajalghati and Saltora where the activities were concentrated.

The MFAL project was launched in four blocks, all located in the north-western part of the district. Tract comprising this area is generally infertile, laterite, hilly and undulating characterised by succession of up lands, slopes, hollows and low lands. Crop-production in such lands is subject to vagaries of rainfall. Within the project areas, the extent of irrigation was extremely low, varying between 1.89 percent and 4.04 percent. Per capita net sown area was also meagre, varying from 0.20 hectare to 0.27 hectare (Table 1).

The major items of activities under the programme were minor irrigation work like digging of wells, soil conservation, soil amelioration measures, animal husbandry and distribution of crop loans.

Table 1

Percentage of Irrigated Area and Per capita Net Sown Area in the Project Areas in Bankura

Project Areas	Percentage of Irrigated Area	Per Capita Net Sown Area (in hec.)
Gangajalghati	3.46	0.23
Saltora	4.04	0.22
Chhatna	3.90	0.20
Mejhia	1.89	0.27

2. A.E.R.C., Viswa-Bharati : (i) 'Study on Marginal Farmers and Agricultural labourers' Development Programmes in the District of Bankura, West Bengal, First Report : Kharif 1972-73.

(ii)—Do—for Rabi : 1972-73.

(iii) Study on Marginal Farmers and Agricultural Labourers in Bankura, West Bengal, July 1975.

However, actual work was found to have been concentrated on dug-wells and dairy development in the project areas (Table 2).

Table 2
Progress of Work in the Project Area

Name of Block	No. of participants in different schemes				
	Dugwell	Dairy	Poultry	Piggary	Total
Gangajalghati	198	14	6	3	221
Saltora	17	32	1	—	50
Chhatna	282	1	9	3	295
Mejhia	38	41	1	—	80
Total	535	88	17	6	646

The MFAL Agency identified 14,127 marginal farmers and 602 agricultural labourers in the project areas up to April, 1974. Of them 646 households, forming only 4.57 percent, were covered by different schemes during the same period. The actual beneficiaries were in many cases not the intended ones as well be seen later.

Characteristics of the sample households

It is seen in Table 3 that upper and middle caste Hindu households predominated among the participants. The scheduled castes and scheduled tribes accounted for 25 percent of total participants. These two social groups together constituted nearly 40 percent of total population in the district in 1971 (Census).

Table 3
Social Composition of the Sample Households

Social Classes	No. of Households	
	No	% Dist.
Upper Caste Hindu	15	31.25
Middle Caste Hindu	21	43.75
Scheduled Castes	5	10.42
Scheduled Tribes	7	14.58
Total	48	100.00

The distribution of workers by primary occupation in Table 4 shows that the large number of workers in the sample households

were engaged in the cultivation of land, accounting for 83 percent. The rest of the workers were engaged either in trade or in services. Agricultural labour as a occupation was conspicuous by its absence in the sample.

Table 4
Distribution of Workers by Primary Occupation

Occupation	No. of Workers	
	No.	% Dist.
Cultivation	73	82.95
Agril. Labour	—	—
Trade	9	10.23
Services	6	6.82
Total	88	100.00

The development programmes were designed to serve the interests of the marginal farmers and agricultural labourers only. However, it is a remarkable feature that (in Table-5) out of 48 participant households, only 15 had holdings equal or less than 1 hectare, which the MFALDA was supposed to include, and 23 holdings were between 1 and 2 hectares (i.e. small farmers). The rest of the households belonged to still higher size classes of holdings. If we consider leased-in land in determining the status of farmers, we find that

Table 5
Distribution of Sample Households by Size-class of Ownership and Operational Holdings

Size-Classes (In hectare)	Distribution of Households by			
	Ownership Holdings		Operational Holdings	
	No.	% Dist.	No.	% Dist.
Up to 1.00	15	31.25	15	31.25
1.01 — 2.00	23	47.92	18	37.50
2.01 — 3.00	3	6.25	6	12.50
3.01 — 4.00	6	12.50	8	16.67
4.01 — 6.00	1	2.08	1	2.08
Total	48	100.00	48	100.00

only 31.26 percent of the sample households would have been intended beneficiaries (marginal farmers). The proportion does not exceed 70 percent even if we include the small farmers among the intended beneficiaries.

Table 6
Percentage of Income by Source (Ref. period—1971-72)

Source	% of Income	
	Marginal Farmers	Small Farmers
Cultivation	60.10	69.75
Service	25.98	14.17
Trade	7.59	6.06
Wages	2.11	—
Remittances	—	9.92
Miscellaneous	4.22	0.10
Total	100.00	100.00

Table 6 indicates that there were some households among the beneficiaries who had not the appearance of a 'farming household'. This is indicated by the fact that on the average as much as 40 percent of the income among the marginal farmers and 30 percent among the small farmers came from non-farm sources, which mainly comprised of service, trade and remittances.

Impact of the different schemes

Attempts will be made in the following sections to assess the impact of the different schemes sponsored by the MFALDA. (a) Dug-well :—It has been stated earlier that in view of the semi-arid and very adverse physical surroundings, the MFALDA in Bankura laid emphasis on providing facilities of irrigation. This was expected to promote increase in farm income through multiple cropping. The irrigation scheme under the project included excavation of dug-wells at a cost of Rs 2500/- to Rs. 3000/- per well.

Table 7 reveals that the capacity of each well for irrigation was only 0.17 hectare of land, which formed only 17.5 percent of total land of the participants belonging to small and marginal farmers. One of the main reasons for the small coverage is that the holders

did not have their holdings in compact blocks. As a result the plots scattered at far distances could not be brought under the command of the wells.

Table 7
Irrigated Area Per Dug-Well

Category of Farmers	No of Dug-Well	Irrigated area (in hectare)		
		Total	Per Well	% of Total Operated Area
Marginal Farmers	21	3.70	0.17	24.5
Small Farmers	18	3.12	0.17	13.0
Total	39	6.82	0.17	17.50

Crop utilisation pattern in the non dug-well land (Table 8) will give an idea of the traditional cropping pattern of the area where ordinary variety paddy accounted for between 93 percent and 97 percent of total cropped area among the marginal and small farmers. Wheat had entered only marginally in the cropping practice. Area under vegetables accounted for only 0.14 percent and 1.08 percent among the marginal and small farmers respectively. The use intensity of land shows that 25 percent of the net cultivated area among the marginal farmers and 9 percent among the small farmers had remained fallow during the year.

However, the introduction of dug-wells had brought about a phenomenal change in the cropping pattern in the command area. Land utilisation as indicated by use intensity increased nearly 50 percent (Table 8). Ordinary paddy and very little of pulses were grown in the command area before the wells were dug. But high-yielding varieties of paddy and wheat and vegetables featured prominently in the newly emerged cropping pattern. Potato was also becoming an important crop in the new cropping pattern.

The impact of dug-wells is also very much observed in the change in the value of output per hectare. It is seen in Table 9 that after setting up of wells, the value of output per hectare in the command area increased by 380.7 percent among the marginal farmers and 606.5 percent among the small farmers. However, if we take into account of total operated land, we observe an increase of 68.6 and 35.8 percent in the per hectare output among the marginal farmers and small farmers respectively.

Table 8
Percentage of Area Under Different Crops in Dug-Well and
Non-Dug-Well Lands of the Small & Marginal Farmers

Name of Crops	Percentage of Total Cropped Area					
	Non-Dug-Well Land		Dug-Well Land			
	Marginal Farmers	Small Farmers	Marginal Farmers		Small Farmers	
			Before the Project	After the Project	Before the Project	After the Project
Paddy (Ordinary)	97.01	92.68	90.80	—	98.33	—
Paddy (HYV)	—	—	—	60.83	—	48.84
Wheat	2.85	4.54	—	8.55	—	8.13
Pulses	—	0.83	9.20	—	1.67	4.82
Potato	—	0.34	—	9.80	—	6.52
Vegetable	0.14	1.08	—	15.62	—	23.84
Others	—	0.53	—	5.60	—	7.85
Total	100.00	100.00	100.00	100.00	100.00	100.00
Intensity of Cropping	0.75	0.91	1.00	1.47	1.00	1.44

Table 9
Value of Output Per Hectare (In Rs.)

Category of Farmers	Dug-well Land		Total Operated Land		% of increase	
	Before	After	Before	After	Dug-well	Total
	the Project	the Project	the Project	the Project	Land	Land
Marginal Farmers	690	3317	943	1587	380.7	68.3
Small Farmers	480	3391	1062	1442	606.5	35.8

The most important test of success of any scheme designed for the marginal and small farmers would be the additional income generated per household. Table 10 presents data on per household and per capita income among the small and marginal farmers for two points of time i.e. before and after the initiation of dug-well project.

Table 10
Income Per Household and Per Capita Among the
Small and Marginal Farmers

Category of Farmers	Per Household		Income in Rs. Per Capita		Percentage increase	
	Before Project	After Project	Before Project	After Project	Per House- hold	Per Capita
Marginal Farmers	1129	1592	160	239	41.0	49.4
Small Farmers	2016	2521	197	247	25.0	25.4

It is revealed from the table that the average income per beneficiary household increased from Rs. 1129/- to Rs. 1592 among the marginal farmers and from Rs. 2016/- to Rs. 2521/- among the small farmers, thus registering an increase of 41 percent and 25 percent respectively. However, the additional amount of income generated per household was just a little over the amount due³ for repayment of loans. Another significant point to notice in the table is that even after the increase of income, the average per capita income of both the category of beneficiaries was much below the minimum consumption level of Rs. 40 60 per month at 1972-73 prices.⁴ As a result there was a high rate of non-repayment of loans made for dug-well purposes.⁵

(b) Dairy :—This was another scheme introduced in the area for the benefit of the marginal farmers and agricultural labourers.

The average investment in dairy development per household amounted to Rs. 3737/-, of which the Agency provided Rs. 1246/- as subsidy and the rest was given by the Bank as loan which was to be paid in five instalments.

It is observed in the study report⁶ that the yield rate of the

3. Amount due (excluding subsidy) would be between Rs 355/- and Rs. 400/- (plus interest) depending on the cost of a well which varied between Rs. 2500/- and Rs. 3000/- .
4. This figure has been taken from the Report of the National Commission on Agriculture 1976, Part XIII, p. 31.
5. B. K. Chowdhury & N. K. Roy : 'Study on Marginal Farmers and Agricultural Labourers in Bankura, W. Bengal, 1975', pp.-Preface.
6. Ibid.

cows given to the beneficiaries was quite low. The average yield per cow was 4 litres a day which was only 25 percent of the expected yield.

The maintenance cost per cow was Rs. 7.00 per day. Since milk was selling at Rs. 1.30 per litre in the market, the owners were at a loss. In such a situation the financial position of the beneficiaries could not be made sound and stable. It was also reported that none of the beneficiaries had paid any instalment so far.

Summary and Conclusion

Our study of the working of MFAL projects in two blocks of a district in West Bengal revealed among others the following things.

Firstly, the coverage of the marginal farmers and agricultural labourers under different schemes of the project was extremely limited, confined to less than 5 percent of the intended beneficiaries.

Secondly, and which is very significant, those covered under different schemes were not always the intended beneficiaries under the rules. Out of 48 households, only 15 strictly fulfilled the criteria, the rest of those covered belonging to higher than marginal farmer or agricultural labour categories. In social terms only 25 percent of the participants belonged to scheduled caste or scheduled tribe categories even though they constituted nearly 40 percent in the district and more in the two blocks. Identification of the intended beneficiaries proved to be a knotty problem both because a number of loopholes existed allowing for entry of non-intended persons and the machinery entrusted with the task was ill-equipped for the job. In terms of intended beneficiaries, therefore, the coverage was even smaller than earlier indicated.

Thirdly, of the two major programmes, dairy programme was ill-conceived with exotic and high yielding variety of cows were practically thrust upon persons who were hardly equipped to receive them. Moreover, adequate infrastructures including veterinary services, seed supply organisations and marketing were not there and in the case of some of the households studied, the scheme appeared to be a disaster.

Comparatively, dug-well irrigation programmes were much better corresponded to the local conditions and the benefits accrued to the farmers from the dug-well areas were perceptible. But the scheme

suffered in that the command area under the dug-wells formed only a tiny portion of the operated areas, and total benefit to the farmers was hardly sufficient to bring them above the poverty line. The approach in the implementation of the dug-well scheme appeared to have been too individualistic to make a dent into the farm economy of the farmers concerned. The service of the wells was limited to a fraction of the total operated area because of excessive fragmentation and scatterings of individual holdings. There was also the problem of suitable crop-planning for the marginal farmers. And wheather crops for direct consumption (high-yielding paddy and wheat) should have been more encouraged than the crops for sales in the market (vegetables in particular) fraught with hazards that required to be closely examined.

From these findings of the study there arose also a number of questions which were of a more general bearing.

The more basic question which surfaced from this study as well as from the several studies of the SFDA & MFAL pertained to the very strategy of such programmes. How far, for example, in Indian context the problem of small farmers, marginal farmers and agricultural labourers could be taken up in terms of ensuring re-distributive justice to the rural poor. Was it an issue of, as was suggested by the Draft Plan, "extending the benefits of Plan programmes for the amelioration of conditions of the handicapped and weaker sections of the society"? A reference to the "handicapped and weaker sections of the society" suggested that this was a peripheral category in an otherwise normal society or economy. But what happened when such a category instead of being a marginal one became the central category in the economy, which it was in the Indian context. In such a situation this ceased to be a problem of ensuring re-distributive justice, the whole strategy of re-distribution getting inter-twined with the strategy of growth itself. A very low percentage of the actual beneficiaries to total number under the category, a wrong identification of the beneficiaries bringing down further the proportion of the bona-fide beneficiaries, ill-conceived programmes (like dairy) thrust from above or failure of even the relatively effective programmes (dug-well) to make any dent on the farmers economy—all these suggested that there could not be any piecemeal approach to the problem, particularly in the area under

our study. Irrigation programmes, for example, could not be isolated from the programmes of consolidation of holdings. Apart from the problems of adequate infrastructures, a climate of co-operative action required to be generated to make such programmes successful.

It is quite often tended to be forgotten that the problem of subsistence agriculture is the problem of under-development itself in the Indian context. Policies for development of small farmers, marginal farmers and agricultural labourers required to be merged into the broader operational framework of rural development. In this context it is worthwhile to quote an observation made by Prof. Dantwala. He observed "...it is futile to search for the solution of subsistence agriculture which is not also a solution of general under-development. Correspondingly, that which is a solution for general economic under-development will also be a solution for subsistence agriculture any dichotomy in the approach to the problem of subsistence agriculture and that of general economic under-development would be sheer escapism".⁷

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- 7 M. L. Dantwala: "Problems of Subsistence Farm Economy: The Indian Case", in 'Seminar on Problems of Small Farmers', Indian Society of Agricultural Economics, Bombay-1, 1968

Food

Cereal import requirements of 73 low-income developing countries are projected to grow by 13 percent in 1980/81 to 41.7 million tons, compared with actual imports of 37 million tons in 1979/80. The increase in cereal import requirements reflects poor crops in several countries of Africa and Asia as a result of droughts, as well as a projected deficit resulting from normal consumption growth not met by domestic production. The FAO projects that the Far East will need to import 23.6 million tons—or 57 per cent of the total requirements—in 1980/81, which represents an 11 per cent increase over 1979/80 imports and reflects poor cereal crops in China and Viet Nam. Cereal import requirements of the low-income African countries are expected to amount to 9.8 million tons in 1980/81, compared with imports of 7.6 million tons in 1979/80, as a result of crop failures in western, eastern, and southern Africa. The Near East is expected to import a total of 7.2 million tons of cereal in 1980/81, while the import requirements of Latin American low-income developing countries is projected at 0.9 million tons and those of Oceania at 0.2 million tons.

Disguised Unemployment and Zero Marginal Productivity of Labor : (An Emperical Test)

A. N. Sadhu* and R. K. Mahajan*

The concept of disguised unemployment has played a significant role in theorizing economic development of under-developed countries. If total output of agriculture does not decrease through withdrawal of some workers (who make no contribution to the output), then national income of the country can be increased by utilizing the surplus labor force in an alternative occupation. A lot has been written on various aspects of disguised unemployment in 1950's and thereafter. The empirical studies of recent times either establish or reject the surplus labor hypothesis and also attempt to explain the pattern of labor utilization in rural society.

The economists like Lewis (1954), Nurkse (1955), J. W. Mellor (1956), Rosenstein Rodan (1957), Georgescu Roegen (1960), William Barker (1961), etc., all supported the idea of disguised unemployment with zero marginal productivity of agricultural labor, whereas Heberler (1957), Viner (1957), Schultz (1964) and others refuted the idea of zero marginal productivity of labor. Different logics and concepts are viewed by the above mentioned economists in order to draw different conclusions.

For example, Leibenstein and Rosentein Rodan and others followed the definition of disguised unemployment with zero marginal product of labour (agricultural labor) 'Cetrus Paribus'. But Navarrette and Navarrette in an article relaxed the condition of 'Cetrus Paribus' and included the capital in production function. Ragnar Nurkse assumed in his theory of economic development that disguised unemployment was present over a wide portion of the population engaged in agriculture.

There is also controversy over the withdrawal of labor and gross

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output in agricultural sector. For example, Rosentsein Rodan found that after withdrawing 20 per cent of population in German occupied Poland agricultural output did not decline. Georgescu-Rogen in the case of Russia and Rumania and Nurkse held the similar views. On the other hand, Schultz in his empirical studies of India and Latin American countries established the view that removal of labor caused decline in agricultural output.

The main objectives of the present paper are to test the hypothesis of zero marginal productivity of labour which is still thought to be controversial in the theory of disguised unemployment. Secondly, the assertion of Eckans, A. Navarrette and I. M. Navarrette and H. Leibenstein that introduction of capital creates more labor surplus, will also be tested.

We propose to study the contribution of labor (Family + Hired) and then family labor in the production of crops on the farm firms. With the help of empirical data collected from the farm economies of Punjab and Jammu & Kashmir, an attempt has been made to measure the marginal productivity of factor inputs to test for the allocative efficiency of inputs. The analytical device used is the fitting of a Cobb-Douglas production function using the least square method of estimation.

Data and Methods

Production function analysis is based on the survey data collected at random from 75 farm holdings of Marh block (J. & K.) and equal number of holdings of Batala block (Pb.). The reference period for the study is agricultural year 1976-77. Batala block of Punjab is comparatively more developed than Marh block of Jammu & Kashmir. Data were collected by the personal interview by canvassing comprehensive schedule providing the information about the land available and sown under different crops, utilization of labor in different operations of crops, etc.

For the purpose of this study the definition of disguised unemployment is accepted as under: Given the labor force actually engaged in the agriculture and paid by the prevalent market wage rate, disguised unemployment is defined as those labor days in which marginal productivity of labor is less than the prevailing wage rate, multiplied by the number of workers.

Cobb-Douglas production function was used for analysis which is given as under :

$$Z = \alpha X_1^{\beta_1} X_2^{\beta_2} X_3^{\beta_3} X_4^{\beta_4}$$

Where Z is the dependent variable i.e., gross value of output in our study.

X_1 = Human labour days.

X_2 = Land in acres.

X_3 = Working expenses.

X_4 = Bullock pair days.

Marginal productivity of X_i , the i-th input, is estimated by the following equation :

$$MVP(X_i) = \beta_i \frac{G.M.(Z)}{G.M.(X_i)}$$

G.M.(Z) and G.M.(X_i) represent the geometric means of output and input respectively. β_i is the regression coefficient of i-th input.

Results and Discussion

The elasticities and marginal value productivities (MVPs) of labor (Hired+family) and family labor and other inputs with related statistics are given in Table I. The coefficients of labor are found to be positive in Marh block and negative in Batala block but are not significantly different from zero. The coefficient of family labor differ in quantity but similar in magnitude. The marginal product of labor is positive in Marh block but less than the prevailing wage rate. It is negative in Batala block. The difference of marginal product of labor from zero is not significant in any case which supports the hypothesis of zero marginal product of labor.

It is clear from Table I that the marginal product of total labor is higher than the family labor. The big gap arising between MVP of labor and wage rate may be mainly due to the imputation of market wage rate to the family labor. In agriculture, the combined use of hired labor and family labor is common in practice. The employment of hired labor varies from operation to operation. In the operations of harvesting, sowing of paddy, hoeing, weeding, threshing of wheat, etc., a major portion of hired labor is employed. But in other farm operations the main part is played by family labor. In real sense, major portion of labor on farm holdings is self employed.

They hardly bother for the marginal products of labor. It may be due to this fact that against the prevailing market wage rate of Rs. 7/- per day the MVP of labour in both the blocks is considerably low. Therefore, to optimise the returns, the use of human labor should be decreased or it should be reorganized in a better way. The excessive use of labor might be due to so many reasons. Some of them are listed below.

The inclusion of the family labor in the analysis is exaggerating the situation. It has been observed that in case of small farmers, higher percentages of family labor force is utilized as compared to hired labor. The efficiency of family labor in most of the cases being low, but even then it is recorded as good as an effective labor. Sizeable portion of family labor is self-employed. Non-adjustment of quality differences inflates the quantity of labor. Secondly, supervisory nature of the family labor in some of the operations only helps in managing the work rather than speeding it up. Moreover, marginal productivity alone does not weigh in the minds of farmers; zero opportunity cost rendering family labor—a free good—is a more important consideration in utilizing family labor on the farms. In case of Indian agriculture the working of family labor has social obligations. Even children and female members join hand to hand of the household on the same piece of land. The major criterion in the family is to share the work equally although the productivity of labor is very low. This leads to a situation in which many workers merely appear to be working but actually they are contributing nothing to the output.

In case of hired labor, too, the farmers do not behave rationally. Actually in the strict theoretical sense, when we assume perfectly competitive labor market, the existence of disguised unemployment of hired labor with zero marginal productivity would not be possible. If the assumption of competitive labor is true with the marginal product of labor being zero, the wage rate will also be zero. But in India this assumption does not hold true. There are various assertions of the problem in a real sense. Many a times the farmer has to employ hired labor because some of the inputs are hired. With the introduction of mechanical inputs, farmers have to employ family as well as hired labor. Prior to this, with the indigenous technology family labor was to do almost all the operations themselves.

Table I
Elasticities and Marginal Value Productivities of Factors of Production.

INPUTS	BATALA				MARH			
	Elasticities		Marginal Value Productivities		Elasticities		M.V.P.	
	T.L.	F.L.	T.L.	F.L.	T.L.	F.L.	T.L.	F.L.
Labor	-.0784 ^{NS} (.0827)	-.0389 ^{NS} (.0249)	-3.65 ^{NS}	-3.63 ^{NS}	.0582 (.0646)	.0270 (.0484)	2.37 ^{NS}	1.88 ^{NS}
Land	.8474* (.0819)	.8433* (.0745)	1233.64*	1267.67*	.5258* (.0916)	.5530* (.0834)	626.16*	659.61*
Working capital	.2371* (.0782)	.1787* (.0682)	1.08*	0.82*	.3419* (.0749)	.3483* (.0158)	2.06*	2.10*
Bullock labor	-.0157 ^{NS} (.0107)	-.0101 ^{NS} (.0115)	-8.63 ^{NS}	-5.55 ^{NS}	.0069 ^{NS} (.0147)	.0066 ^{NS} (.0158)	2.11 ^{NS}	2.11 ^{NS}
R ²	.9627	.9635			.9506	.9502		
Sum of elasticities	.9904	.9635			.9328	.9352		
No. of holdings	75	75			75	75		

NS - Not significantly different from zero even at 10 per cent probability level.

* Significantly different from zero at one per cent level.

(Figures in parentheses are standard error)

T.L. = Total labor
F.L. = Family labor

Therefore, a part of the family labor, effectively engaged in case of indigeneous technology, becomes disguisedly unemployed with the introduction of capital. In agriculture, therefore, substitution of capital even in a small amount can permit a large portion of labor to be redundant. Here we are to some extent satisfied with the conclusions of the group of economists¹ who maintain that introduction of capital creates more labor disguisedly unemployed. On the Batala farms the negative coefficient of labor showing more excessive use of labor may be due to the use of mechanical inputs on farms.

Though some of the conditions in agriculture have been controlled by the man yet it depends more or less on the vagaries of nature. In this case a farmer's decisions regarding the employment of various inputs are ex-ante subject to the quality of land. If, due to some reasons, harvest fails then all the decisions made by the farmer become irrational. In case the crop is damaged by disease, pest and due to some other reasons the same amount of laborers will have to harvest the crop so that the next crop can be planted. This makes the employment output relation weak and sometimes causes excess labor in relation to output.

Concluding Observations

The foregone empirical study of Punjab and Jammu & Kashmir shows the existence of disguised unemployment. It also supports the zero marginal productivity of labor hypothesis. It is interesting to point that the problem of disguised unemployment is severe in Batala block than Marh. MVP of labor in Marh block is positive but less than the prevailing wage rate. In Batala block, it is negative. When family labor is taken separately, it is found to be a major responsible factor for making the problem of disguised unemployment tense.

Overall analysis gives some pleasing inferences. If there is any scope of raising the productivity and labor utilization by rational employment of the existing resources in order to increase the output, the problem of disguised unemployment would be reduced. In this

1. A. Navarrette and I. M. Navarrette : "Unemployment in U.D. Economies", International Eco. paper, No. 3, p.235., H. Leibenstein : Economy, Backwardness and Eco. Growth, Willey & Sons, New York, 1957.

study land and fertilizers in Batala and Marh blocks respectively are not optimally utilized. By adjustment of the cropping pattern in a new order in Batala block the utilization of land and labor can be increased which can make the labor coefficient positive and considerable. On the Marh farms by providing some incentives to the farmers the utilization of fertilizers and manures along with the other inputs can be increased. This will certainly increase the output and hence the labor productivity. In short, these under-optimally utilized inputs in both the blocks can have far-reaching effects on the productivity of human labor.

But after reorganizing farm business, there is redundant labor, the expansion of the non-agricultural sector may be recommended. The development of non-agricultural sector will productively utilize the redundant labor without causing any food shortage and can be an important source of capital formation. The increase in per capita income of the workers has a feed back effect on agriculture.

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(Continued from page 8)

Having examined the growth performance of Indian agriculture it would be useful to discuss the projections of supply-demand balances as provided by the National Commission on Agriculture. Table 2 gives the supply-demand balances envisaged in 1935. The realisation of the targets of income growth as envisaged in the draft Fifth Five Year Plan is expected to generate a demand for foodgrains of the order of 163 million tonnes. Therefore, the production programme should be organised on the basis of fertilizer consumption of 9 million tonnes. If, however, the fertilizer consumption reaches only 7 million tonnes, the production of foodgrains would be of the order of 150 million tonnes, which might cause a food crisis. The supply position in respect of oils may continue to be disquieting. The total availability of all oils from indigenous sources may not exceed 5.9 million tonnes with which it would be possible to meet the domestic demand on the assumption of low income growth. But with the achievement of higher order of demand on the high income growth assumption, there would be a shortage of 0.7 million tonnes. The country is expected to be surplus in the production of sugar & gur, and jute & mesta. The internal demand for cotton is expected to increase at a very rapid rate during the coming years. Demand for exports is also likely to expand and it may be necessary to restrain domestic consumption to meet export obligations. Production of tobacco is expected to be 500 thousand tonnes in terms of weight as against the internal demand of 355 to 430 thousand tonnes. Thus, there will be an exportable surplus between 70 and 145 thousand tonnes. The country is expected to be self sufficient in milk and eggs by 1985. The supply of meat will be sufficient to meet the low estimates of demand. The supply of fish will be much in excess of demand which suggests the need for providing proper incentives for encouraging exports. There is also a need to develop adequate processing facilities so as to encourage the domestic consumption of this protein rich item of diet. Further, supply of industrial wood is also projected to be far in excess of demand requirement.

Table 3 presents the supply-demand balances for 2000 AD. It would be seen that the country would be able to meet the entire domestic demand even on the assumption of high income

growth in respect of the important agricultural commodities considered except oils. However, the realisation of the estimated supplies would depend on the extent to which it would be possible to provide the inputs on the envisaged scale and to ensure extension and infrastructural support for the fulfilment of the targets. If the production level of 230 million tonnes is achieved there would be a surplus of about 5 million tonnes after meeting the high demand estimate of 225 million tonnes. Thus, special efforts will be needed to develop export markets to absorb the emerging grain surpluses. The overall supply position in respect of oils would continue to be difficult. The demand for oils is expected to increase to 10.2 million tonnes in 2000 AD on the high income growth assumption, whereas total availability may not exceed 9.7 million tonnes indicating a deficit of about 0.5 million tonnes. The supply position in respect of sugar, and cotton is expected to improve considerably by the end of this century.

Table 1
Growth Rates of Area, Production and Yield in India

Period I : 1949-50 to 1964-65

Period II : 1965-66 to 1977-78

Pooled : 1949-50 to 1977-78

	I	II	Pooled
AREA			
Food	1.40	0.64	0.84
Non-food	2.49	0.81	1.39
All crops	1.61	0.70	0.96
PRODUCTION			
Food	2.87	3.65	2.52
Non-food	2.47	2.89	2.67
All crop	3.07	3.39	2.57
YIELD			
Food	1.47	3.00	1.68
Non-food	0.98	2.08	1.28
All crops	1.47	2.69	1.61

Source ; Abridged from Shri T. N. Srinivasan, Trends in Agriculture in India, 1949-50 - 1977-78, Economic and Political Weekly, Vol. XIV, Nos. 30, 31 & 32, Special Number 1979, p. 1284.

Table 2
Supply-Demand Balances—1985

Item	Unit	Supply possibility		Domestic demand	
		High	Low	High	Low
Foodgrains	(million tonnes)	164	150	163	130
Oils	"	5.9		6.6	5.3
Sugar & gur	"	21.0		21.2	16.9
Cotton	(million bales)	12.5	11.5	12.9	8.1
Jute & mesta	"	9.8		5.9	4.9
Tobacco (dry weight)	(thousand tonnes)	500		430	335
Milk	(million tonnes)	44.2		44.2	33.4
Eggs	(million numbers)	15,775		15,972	10,217
Meat	(million tonnes)		1.19	1.40	1.05
Fish	"		4.28	3.4	2.8
Industrial wood	(million m ³ r)	39		35	30

Source : Report of the National Commission on Agriculture, Ministry of Agriculture and Irrigation, Government of India, New Delhi, 1976.

Even the low estimate of sugar would be adequate to meet the high estimate of domestic demand and still leave a surplus of about 2.6 million tonnes of sugar and gur for exports. In case of cotton, fibre and mesta also production is likely to far exceed the demand. Same is true of tobacco. In regard to livestock products, the situation of self-sufficiency achieved in 1985 would continue till the close of the century and it might be possible to have marginal export surpluses. However, the country is expected to be faced with the problem of significant surpluses of more than 2 million tonnes of fish by the year 2000 AD. In regard to industrial wood again supply will outstrip the demand. However, the supply-demand balances presented above are subject to many assumptions. A constant watch has therefore to be maintained on trends in supply and demand in order to match the supplies with demand through deliberate intervention at both ends.

Table 3
Supply-Demand Balances-2000 AD

Item	Unit	Supply possibilities		Domestic demand	
		high	low	high	low
1	2	3	4	5	6
Foodgrains	(million tonnes)		230	226	205
Oils	(million tonnes)		9.7	10.2	8.3
Sugar & gur	(million tonnes)	41.4	32.5	29.9	24.0
Cotton	(million bales)	29.3	24.0	17.2	10.4
Jute & mesta	„		16.7	11.8	8.6
Tobacco (dry weight)	(thousand tonnes)		692	590	479
Milk	(million tonnes)		64.4	64.4	49.4
Eggs	(million numbers)	27,882		28,513	17,419
Meat	(million tonnes)		2.10	2.11	1.57
Fish	(million tonnes)		8.0	5.5	4.6
Industrial wood	(million m ³ r)		71	64	47

Source : Report of the National Commission on Agriculture, Part III, Demand and Supply, Ministry of Agriculture and Irrigation, Government of India, New Delhi, 1976.

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ECONOMIC AFFAIRS

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Dance of Democracy

Unanimous cry, India should be a democratic country. But there is no unanimity on what type of democracy India should have. The reality is however India moves on the path of western type of democracy. For this provides a ground for people's movement to crush the democracy itself.

Democracy is a way. The way is such that whatever is being constructed is classed as anti-people by the very same leaders of the political parties while they are out of power. It is a game for power at the cost of social, political and economic health of the nation. So much so that the country's economy has become shambles, black money has got respectful acceptability, and politics derives its strength not from masses but from money-bags.

The working people have become tired of working hard for feeding a few. This has enabled the labour leaders to have an easy access to the area of labour exploitation. They feed them with repeated doses of 'no work, double pay'—Utopia turned truth in a society raised on a left to western democracy.

The rural people, hungry as they are, want one and one thing only—food. A class of people, themselves never know what hunger is, persistently wash their brains with lofty ideas based on class hatred providing false promises and fingering toward high sounding terminologies as monopoly capital, exploitation, democratic revolution etc. with eyes fixed on capturing power by using them as instruments as they are numerically decisive in a democratic set-up. To that extent western democracy is an acceptable base for them.

Democracy, as it is, has internationalised the country's political and economic life. Self-reliant as a measure of maintaining equidistance is a far cry where the dice of democracy is cast. What is cried out is the pain of bearing democracy.

Opposite to western type of democracy is discipline in Indian context. Discipline is the fountain-head of economy. Distribution

follows production and the latter is the function of discipline. And any sort of discipline presupposes national imposition of general will. But Emergency has shaken the base of this approach of discipline. The renewed attempts of the Centre for installing industrial discipline and curbing divisive and uneconomic activities by way of such measures as special bearer bonds or Essential Services Maintenance Ordinance are too inadequate to achieve the ends. Even for that a class of people styled to be the leaders of the people have raised resistance as to them democracy is ever in danger. But while they are in power they also fail to drive the country to development through any alternative path. Even now they have no positive say where and how to lead the country to equalitarian progress.

Force yields. But the rule of force is a dangerous path and can never be a lasting one. Understanding with the people at large (not necessarily with the leaders) is the right way for solution of any national problem. But in our leaders invested society based on illiteracy and hunger on the one side and plenty on the other an understanding with the people is a difficult task. Still a rapprochement is to be sought between force and understanding. People should be taught at the base level how the national economy works, how inflationary finance and oil price diplomacy influence the economy, the causes and effects of black money, the inevitability of disparity in income distribution in a free economy and its ills and benefits etc. On the other hand criticisms of the model and working of the economy and the failings of the brains behind them etc. are constructively to be made periodically. In short, the people should be re-educated patriotically and involved in the management of all national affairs. Only to fill up the gaps, force should be used. This then would be the beginning of a constructive way out for all the past misdeeds freeing the country at the same time from foreign friendships at the cost of the friendships with the countrymen.

Review

Money and Banking in Contemporary Japan, Yoshio Suzuki, Yale University Press, New Haven and London, Price £11.40.

Mr. Suzuki is inspired to produce his lecture-essays in a book form as he finds there are too few books on Japan's monetary mechanism and also because of his fear that unless the monetary and financial aspects of the export-oriented, investment-led development pattern of the Japanese economy are systematically set down it will be difficult to make a balanced appraisal of future changes as Japan has been moving toward a welfare-oriented economy.

He has dealt his essays in five parts. The respective parts discuss the peculiar characteristics of Japan's financial structure relative to her international counterparts, need for adoption of expanded IS=IM model in Japan's monetary mechanism, the instruments of Japan's monetary policy, their effectiveness, and the prospects for the future.

Mr. Suzuki holds that in the trade-off between the three objectives of price stability, equilibrium in the international balance of payments, and growth the monetary policy should always be assigned to price stability. His support to price stability is to be understood in the context of the self-preservative approach of Japan to protect the national finance from being internationalized.

The study is largely based upon four distinctive interrelated financial characteristics as settled in Japan, namely, overloan, overborrowing, imbalance of bank liquidity between city and local banks, and predominance of indirect borrowing. The role of interest rates in financial structure of the country is both interesting and educative for the developing countries. Call rate is the highest of all the other four rates reflecting variation in the demand for funds, in turn it reflects the fact that the other four interest rates have been fixed at subequilibrium prices. "Since the rates have been set at nonequilibrium levels, the price mechanism cannot do its job, so

that in the market for funds there is naturally an excess demand situation”.

What Mr. Suzuki pinpoints is that the four distinctive characteristics of Japan's financial structure were both the causes and the effects of investment-led growth, promotion of artificially low interest rates, and non internationalization of the economy, and were also the key-stones of the growth of Japan between 1965 and the early 1970s. The theoretical model raised by him for examining the behaviour of the banks and their subjective equilibrium is also of much practical interest. Equally interesting is the explanation offered for the limited effects of monetary policy in Japan. Looking to forward he emphasises the liberalisation of interest rates for manipulation of the finance of the country.

The comprehensive, self-explanatory and suggestive works of Mr. Suzuki will be rewarding for the readers.

Personal Management, P. C. Tripathi, Sultan Chand & Sons, New Delhi 110002, Price Rs. 17.60.

Scientific approach to the problems of personal management is a recent significant development in the courses of study in Indian universities. Obviously, the dearth of acceptable text-books for Indian students was keenly felt. This book will help meet substantially this need. The second edition under reference is enriched by addition of case studies. The study is divided into fourteen chapters covering such topics as planning and organising the personal function, personal control, performance appraisal, wage and salary administration, and industrial relations. Simple presentation, precise analysis and comprehensiveness have added much to the value of the book.

Indianisation of Our Education, A Board of Editors, West Bengal Headmasters' Association, Calcutta 700 073, Price Rs. 20.00.

In this book twentynine eminent educationists have highlighted the poverty of the present system of education in India. They demand Indianisation of it. But how? This vexed question is by and large avoided by them. Truly, the point should be how to change the foreign non-absorptive cult from Indian soil. The publication is however a timely warning for intellectual awareness.

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cost (TK. 49.16) i.e. 29 percent of selling price, observed in the study do not seem to be very high in the context of marketing situation in Bangladesh. But the costs can be reduced by eliminating the costs incurred by the intermediaries for offering illegal tips at different stages of marketing.

Conclusion

The foregoing discussions lead to some conclusions to improve the poultry marketing system in Bangladesh. Inadequate capital has been observed to be an acute problem among all intermediaries specially at Bepari level. Financial Institution should provide funds to the intermediaries. Measure should be taken to insure risks involved in the marketing. Inadequate transport system leads to high transport cost. Govt should introduce special poultry vans in trains to carry birds timely and properly from primary markets. Mal-practices at different stages of transportation should be eradicated. There is only one 'Arat centre' in Dacca city for poultry marketing which is also privately owned Initiative^{*}—both public and private—should be taken to establish big Arat centres and their control should be vested in Govt. level. Introduction of scientific grading and standardization and fair market prices will protect the interest of the producers, intermediaries and consumers. Besides improved exotic breeds of poultry birds under the village condition and production of balanced food at reasonable rate can develop the poultry industry as a whole.

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Premier Digest, Rajendra Pal, Prem Puri and Sudarshan Chopra, Sultan Chand & Sons, New Delhi 110002, Price Rs. 30.00.

The book is intended for students preparing for Bank Probationary Officers' Examinations. The objective-type questions have outlived the essay-type questions for no other valid reason than that this has currently become the 'scientific' basis of testing the quality of a candidate in advanced countries. The basis has been so generalized that it is also applicable to a specialized job like Bank Officer. Thus, without the basic knowledge of saving and investment one can straightway be a bank boss.

The book includes topics like general awareness, reasoning, English comprehension, precise writing, essays, letter writing and quantitative aptitude.

The hard and cautious labour of the authors will benefit the students as they will hardly find any relevant information or description missing in the book. It is so comprehensive and dependable.

Impact of Rainfall on Crop Yield in West Bengal

Siddheswar Ray*

A considerable volume of literature has grown up in recent times on the study of crop-weather (specially rainfall) relationship. In a very recent issue of Indian Journal of Agricultural Economics, R. S. Deshpande¹ has given a long bibliography. But it is very difficult to have a firm conclusion for building up a macro-model for forecasting on it. A. Vaidyanathan in the same issue of the journal, has said, "The forecasting models based on macro data, being highly empirical in their approach, are of doubtful value for understanding weather-yield relations".² Having reviewed briefly the work of Harold Mann³—the pioneering work, and the paper of Ram Dayal⁴ I have tried to bring out the relationship between productivity of rice (Aman) and rainfall spread over months—along with the effects of other growth factors, with reference to data of a progressive district—Burdwan and a district of the sub-Himalayan Region—Jalpaiguri,—through multiple regression analysis.

Harold H. Mann's book, 'Rainfall and Famine—A Study of Rainfall in Bombay Deccan, 1865-1938' is a pioneering work on the relationship between rainfall and agricultural productivity. He has worked with reference to four districts—Poona, Ahmednagar, Sholapur and Bijapur. In his study, he has found, in general, "no direct and close co-relation between the effective rainfall and the goodness of the season". The author has, however, discovered some trend of relationship between rainfall and the success of the crops through distribution of rainfall over the season. As already pointed out, several studies on rainfall have been made afterwards. Ram Dayal has made an interesting study on rainfall-crop relationship in Punjab, taking wheat as the crop and rainfall in the months of December, January, February and March. To determine the effects

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of monthly rainfall on the yield per acre of wheat and the effects of developmental effort, he has set up the multiple regression equation in the form

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + rT.$$

(where Y = yield per acre of wheat in Punjab ; X_1 to X_4 = average rainfall in millimetres in Punjab in the months of December, January, February and March respectively ; T = time variable, indicating technological and other growth factors). Later, he has introduced further refinements by introducing semi-log function and fortnightly rainfall data.

We may set up similar multiple regression equations for an agriculturally progressive district Burdwan and also Jalpaiguri, a district of the sub-Himalayan region. The equations may be put in the form

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + rT.$$

(where Y = yield rate per acre in mds. of winter-rice ; X_1 to X_5 = average rainfall in millimetres of June, July, August, September, October ; X_6 = average rainfall in millimetres in November and December combined ; T = time variable indicating technological change).

We shall set up four equations accordingly, two for each district and for two decades (the decade of fifties and the decade of sixties). In the decade of fifties—except irrigation, there was hardly any technological change ; whereas, in the decade of sixties—mechanised minor irrigation, effective use of chemical fertiliser, the package programme, and the high yielding variety programme have been introduced in West Bengal agriculture. In the following Table the results of the multiple regression analysis in the form of the above equations have been shown. Step-wise regressions have been done⁶. The data on yield per acre (Aman) and the monthly rainfall have been taken from the Directorate of Agriculture, Govt. of West Bengal.

Several things have emerged from the above table. As regards the effects of monthly rainfall on productivity of rice in the district of Burdwan, in both the decades,—the net effects of rainfall of the months of June, July, and average rainfall of November and December (combined) are positive, whereas the effects of monthly rainfall of August and September are negative. But, in Jalpaiguri in both the decades, the effects of rainfall in the months of July and August are negative. But, in the month of September the effect is positive.

Table showing results of regression equations in the form

$$y = a + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5 + b_6x_6 + rT$$

(where Y = yield rate per acre in mds. of winter-rice (Aman), X_1 = average rainfall in June, X_2 = average rainfall in July, X_3 = average rainfall in August, X_4 = average rainfall in September, X_5 = average rainfall in October, X_6 = average rainfall in (November and December) combined (in mm), T = time variable).

Time (Year)	District	Equation
1950-51 to	Burdwan	$Y = 10.9464 + .00303205X_1 + .00372116X_2 - .000620555X_3 - .00200029X_4 - .0113716X_5 +$
1960-61		$.0407257X_6 + .557450T$ $R^2 = 0.77866$
1961-62 to	do	$Y = 14.4987 + .00202356X_1 + .00501887X_2 - .00264152X_3 - .000963052X_4 + .00117938X_5 +$
1970-71	Jalpaiguri	$.0565469X_6 + .0170783T$ $R^2 = 0.77737$
1950-51 to		$Y = 8.36455 + .00338846X_1 - .001866X_2 - .0000958761X_3 + .00396443X_4 - .0086241X_5 +$
1960-61		$.0143769X_6 + .181379T$ $R^2 = 0.95158$
1961-62 to	do	$Y = 15.768 - .0020043X_1 - .00180684X_2^2 - .002541X_3 + .0037438X_4 + .00164903X_5 -$
		$.00324506X_6 - .192789T$ $R^2 = 0.81813$

Agronomically, rainfall in the initial months of cultivation of Aman (June and July) is very much necessary, and further rainfall in the months of August and September has proved harmful in both the decades. But in Jalpaiguri (except in August), the situation is quite different. Thus, the crop-weather relation which is valid for a district may not be so for another. Thus it is difficult to have a macro-model for forecasting crop-weather relation for West Bengal as a whole.

Secondly, in both the districts, the constant 'a' has undergone a good rise in the second decade. It may mean productivity due to technological change has undergone a change (as, for example, in 1961-62 there was a sharp rise in the use of chemical fertiliser from the level in 1950-51).

Thirdly, the effects on productivity of other factors of growth represented through T have definitely become lower in both the districts in the decade sixties (compared to that of the decade fifties). This might have occurred due to severe droughts in 1962-63, 1965-66 and 1966-67. R^2 in all the equations is high, at least not very much low.

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Unmet Needs of Indian Children and the Alternative Strategies for Potential Human Resource Development

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United Nations has proclaimed in its various resolutions that the parents have "a basic human right to decide freely and responsibly the number and spacing of their children".¹ The term "responsibly" implies that the right should not be exercised selfishly but only in the interest of the welfare of the children. The decision to have additional children should be taken keeping in view the means available to them.

This concept of 'responsibility' is particularly relevant to India and other developing countries, where children constitute above 40 per cent of the population and who have been deprived of basic necessities of life. Even after five planning quinquennia, the minimum needs of Indian children remained unmet. These minimum needs have been articulated more fully in the 'Declaration of the Rights of Child', adopted by the United Nations General Assembly in 1959.² Children have the right to (a) a name and nationality, and equal status at birth, (b) maternal protection and family care, (c) health care, (d) adequate nutrition and adequate shelter, (e) education, (f) play and recreation, (g) social protection irrespective of colour, race, language, etc., (h) protection from work and exploitation, (i) special care for all types of handicapped children. The parental right to decide freely and responsibly the number and spacing of children—is derived from these rights of child.

Let us now retrospect how far these rights and needs of children have been fulfilled in India after three decades of planned economic development. The needs of the children vary according to different age groups and different environments.³ During gestation period,

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maternal health including nutrition is important. The priority needs of infants and pre-school children are health and nutrition. For the school-age children, education and health including nutrition are the basic needs. For adolescents, vocational training is the priority need. Some of the needs of rural children are different from urban children. The needs of the children can be analysed from different angles⁴ by sectors (health, education etc.), by specific problem (e.g., malnutrition), by geographical regions (state-wise) and by age groups. Due to data inadequacies, an attempt is made in this paper to analyse the needs of children by sectors and states only.

Health :—Though the expansion of medical and health services contributed much to the decline in death rate (15 per 1000 population in 1976), the infant death rate remained alarmingly high around 138 per 1000 in rural India in 1971. A state-wise analysis of infant death rate, as shown in the Table 1, presents a bewildering situation in rural Uttar Pradesh where the infant death rate is as high as 173 per 1000 live births. On the other hand Kerala shows lowest infant death rate of 60. On the contrary, the infant mortality rate in Sweden was 12 in 1970.⁵ Many surveys have identified that,

Table 1
Infant Death Rates in the Selected States, 1971

States/India	Rural	Urban	Combina
A. States in the Top Tier :			
1. Uttar Pradesh	173	119	167
2. Gujarat	155	110	144
3. Assam (including Meghalaya)	144	73	139
4. Madhya Pradesh	194	79	135
B. States in the Bottom Tier :			
1. Kerala	60	48	58
2. Haryana	74	58	72
3. Jammu & Kashmir	78	53	75
4. Karnataka	105	54	95
C. ALL INDIA	138	82	129

Source : Sample Registration Bulletin, Registrar General, India, Vol. 11, No. 4, October, 1977, Table 5(a), pp. 15 and 16.

malnutrition is the chief villain working against the survival of Indian children.

Nutrition :—An important unmet need of the Indian children is adequate nutrition. The I.C.M.R. has shown that, among the 1-5 age group children, the calories intake is 758 as against the suggested allowance of 1300 calories.⁶ The incidence of malnutrition varies widely from state to state. For example, as evident from Table 2, that Tamilnadu is severely deficient in both calories and protein intake. Remaining all other given states (except Punjab and Madhya Pradesh) are deficient in calorie intake only. The worst sufferers of the incidence of malnutrition are children and pregnant women, which causes irreparable damage to children. It is estimated that 13,000 Indian children are going blind every year for this reason alone.⁷

Table 2
Average Intake of Nutrients in Selected States 1960-69
(per caput per day)

States	Calories	Proteins (gm)
A. States in the Top Tier :		
1. Punjab	2832	84
2. Madhya Pradesh	2779	98
3. Uttar Pradesh	2307	66
4. Maharashtra	2281	68
B. States in the Bottom Tier :		
1. Tamilnadu	1498	36
2. Gujarat	1612	54
3. Kerala	1842	47
4. Bihar	1865	56
C. ALL INDIA	1985	55
Suggested allowances	2400	44

Source : C. Gopalan et al., Diet Atlas of India, 1971, National Institute of Nutrition, ICMR, Hyderabad, Table 13, p. 119.

Education :—Article 45 of the constitution lays down that free and compulsory education should be provided for all the children up to the age of 14 within a period of 10 years from the commencement

of the constitution.⁸ It may take another decade or so to accomplish this directive. At present, 77 per cent of the children in the age group 5-9 and 50 per cent in the age group 10-14 are illiterates.⁹ The data presented in Table 3 show that there are wide ranging disparities among the states. States like Nagaland are at the top-tier and the others like Bihar are at the bottom-tier in the matter of middle school enrolment ratio. Thus majority of the children, particularly girls, stay out of the school, which has an implication on human resource development.

Table 3
Middle School Enrolment Ratio in Selected States, 1973

States/India	Classes VI-VIII (Percentage)		
	Total	Boys	Girls
A. States in the Top Tier :			
1. Nagaland	91.1	108.3	73.0
2. Kerala	77.2	82.0	72.0
3. Himachal Pradesh	54.2	80.0	28.1
4. Tamilnadu	49.7	62.6	36.4
B. States in the Bottom Tier :			
1. Bihar	20.4	32.6	7.4
2. Orissa	22.6	32.7	12.4
3. Andhra Pradesh	23.6	32.0	15.0
4. Madhya Pradesh	23.6	34.5	12.2
C. ALL INDIA	35.6	48.4	22.2

Source : Statistical Profile of Children and Youth in India, United Nations Children's Fund (UNICEF), SCAR, New Delhi, November 1975, Table 42, p. 73-74.

According to the Planning Commission, in rural areas 72 per cent of the population have a middle school within 3 kilometers.¹⁰ Lack of schools, therefore, may not be the main reason for low school enrolment. The rampant dropout rate is enforced by socio-economic factors. The magnitude of dropout among the states ranges from 5 per cent in Himachal Pradesh to 79 per cent in Bihar at the middle stage of education in 1970-71. (See Table 4). The ultimate impact of high dropout rate is the increased proportion of child workers in the country.

Table 4
Percentage Dropouts at Middle State of Education in
Selected States, 1970-71

States/India	Percentage
A. States in the Top-tier :	
1. Bihar	79.0
2. Andhra Pradesh	75.9
3. Madhya Pradesh	74.6
4. Orissa*	71.7
B. States in the Bottom-tier :	
1. Himachal Pradesh	5.1
2. Kerala	34.0
3. Mysore	37.9
4. Punjab	51.9
C. ALL INDIA	62.2

* If Manipur (73.8%) is considered, Orissa occupies fifth place.

Source : Om Prakash Batra, "Inter-state and Inter-regional Variation in Educational Wastage in India", The Educational Quarterly, Vol. 29, No. 2, July 1977, Table 2, p. 20.

Employment of children : Even forty years after the adoption of the Employment of Children Act (1938), more than 10 million children are economically active, forming nearly 6 per cent of the total workers. Table-5 indicates that the prevalence of child labour is highest in Andhra Pradesh and lowest in Kerala. Most of the child workers are engaged in the primary sector and any amount of legislative measures restricting child labour may prove futile. Because child labour is an economic necessity for millions of families living below poverty line. Again poverty is the principal factor in the incidence of wide spread nutrition ; high infant mortality, high drop-out rate etc.

Poverty : The important factor that has stood in the way of realisation of the rights of the Indian child is the poverty. Removal of poverty has been the central objective of Indian planning. Still, it is estimated that 46 per cent of people are below the poverty line in 1974 (see table-6). As regards the intensity of poverty, 13% of

Table 5

Percentage Child Workers Among Total Workers in Selected
States, 1971

States in the Top-tier	Percentage	States in the Bottom tier	Per-centage
1. Andhra Pradesh	9.04	1. Kerala	1.80
2. Mysore	7.94	2. Maharashtra	3.30
3. Rajasthan	7.30	3. Tripura	4.04
4. Madhya Pradesh	7.27	4. West Bengal	4.13
ALL INDIA : 5.96%			

Source : Based on D.A.Naidu, "Child Labour Participation in India : A State-wise Census Analysis", International Institute for Population Studies; Bombay, 1978, Table-3, p. 4. (mimeo).

the population are below the line of severe destitution ; and 26 per cent below the destitution line. It is heart-rendering to note that nearly 62% of the people in Orissa are below the poverty line. On the other hand, the percentage figure for Himachal Pradesh is 15.7 per cent followed by Meghalaya, Punjab and Haryana in the ascending order. Children are the main victims of poverty and destitution. It is right when it is said that poverty breeds population and population breeds poverty.

Child Marriage : Another social problem that has a bearing on the welfare of the children is the prevalence of child marriage. Early entry into sexual union deprives educational and employment opportunities particularly for girls. Early resort to procreation risks the health of the mother and child. Though the Sarada Act of 1930 prescribes 14 years of age as the minimum age of marriage for girls, 14 per cent of the girls in the age group 10-14 in rural areas had acquired marital status according to the 1971 census¹¹.

Alternative Strategies For Potential Human Resource Development :

The fundamental problem of economic development is not only to create wealth but also to produce the capacity to create wealth. Thus the investment in man which enhances the capacity to create wealth is as important as physical investment¹². Planning for human

Table 6
Three Rings of Poverty in Selected States
(As on January, 1974)

States/India	Percent of Total of Population below the line of		
	Severe Destitution	Destitution	Poverty
A. States in the Top-tier :			
1. Orissa	25.8	42.4	61.5
2. Tamilnadu	17.9	32.3	54.8
3. Andhra Pradesh	15.4	29.2	51.9
4. Madhya Pradesh	16.4	31.7	51.8
B. States in the Bottom-tier :			
1. Himachal Pradesh	2.2	4.6	15.7
2. Meghalaya	2.8	7.1	17.7
3. Punjab	1.5	6.5	19.7
4. Haryana	5.5	13.1	27.5
C. ALL INDIA	13.2	26.0	45.5

Source : Monthly Commentary on Indian Economic Conditions, Annual number, Vol. 19, No. 5, 221, December 1977, Table-II, p. 129.

and social development is a crucial ingredient in the planning for economic development. Research undertaken at the United Nations Research Institute for Social Development (UNRISD) in Geneva has shown that in a simple model containing just three social factors (health, nutrition and education and two economic factors (investment and labour), the former explained more than half the growth rate differentials left unexplained by the latter¹³.

A perspective human resource development plan can become successful only when it assigns highest priority for children in the country. Because the children constitute more than 40% of the population in the developing world and they are the future producers and potential human resources. If we take care of them now, they will take care of future.

Let us critically examine wheather the resources going into the human and social development are adequately increasing during

the process of planned economic development in India ; and how far the development strategy followed in major social sectors in India is effective or directed to fulfil the needs of children.

Social Infrastructure : The overenthusiastic Indian planners are preoccupied with the goal of high growth rate of national product. The social aspect of development plan has been relegated to the background. This slackening emphasis on social goals can be traceable to the allocation of plan resources to social service sector over the past two and half a decades. Table 7 shows that the percentage of allocation on social service sector has been practically declining. This assumes significance in view of the fact that the social service sector includes expenditure on health, education and other child welfare programmes which directly influence the lot of children. In view of the growing needs of the Indian children, the social service sector can be given relatively high priority in the allocation of plan resources.

Table 7

Plan Expenditure on Different Heads (Percentage)

Heads of Development	1951-52	1960-61	1965-66	1970-71	1977-78 (Outlay)
1. Agriculture and Community Development	11.2	13.1	13.2	14.9	12.7
2. Irrigation and Power	32.1	18.0	23.0	28.7	29.6
3. Industry and Mining	4.1	20.4	25.0	20.1	25.2
4. Transport and Communication	26.5	26.0	20.4	20.1	16.0
5. Social Services	24.9	19.3	16.9	14.9	14.4
6. Other Programmes	1.1	2.5	1.5	1.3	2.1
Total allocation (Rs. crores) (1 crores=10 million)	259.60	1071.03	2332.29	2523.50	9965.40

Source : P. R. Panchamukhi, "Employment and Educational Policy : The Indian Experience", Manpower Journal, Vol. 14, No. 1, April-June, 1978, Table 2, p. 35.

Appropriate Educational Strategy : Failure to accomplish the constitutional provision of free and compulsory education for all the children up to the age of 14 is perhaps due in part to the wrong and inconsistent educational priorities. The pattern of educational expenditure in India (See Table 8) reveals that the focus has been mainly on university education, (barring the First and Fifth Five Year Plans) whereas the emphasis on elementary education was inconsistent and relatively inadequate. As a result, only a small segment of the juvenile population which enters the colleges is being benefited and the remaining major segment is deprived of even primary education.

Table 8

Plan-wise Percentage Distribution of Expenditure by Levels of Education in India and South Korea in 1970

Level of Education	First Plan	Second Plan	Third Plan	Annual Plan	Fourth Plan	Fifth Plan	South Korea
1. Elementary	56.0	35.0	30.0	20.0	28.5	50.0	52.0
2 University	9.0	18.0	15.0	24.0	22.3	12.6	14.0

Source : Based on D. A. Naidu, "World Consensus of Bucharest and India's Population Control Programme", Economic Affairs, Vol. 21, No. 3, March, 1976, Table II, P. 93.

Need-based Health Delivery System : Persistent high infant mortality in India, apart from other factors, may also be attributable to what the World Bank has described as "inefficient and inequitable health policies".¹⁴ A comparison of the health delivery systems of the two groups of countries with difference of emphasis on medical and paramedical personnel underlines the weakness of the above approach. The data in Table 9 show that in the second group countries high infant mortality rate is associated with the neglect of paramedical staff as against low infant mortality with emphasis on paramedics in the case of first group countries. However, it is only recently that the Indian health delivery system has showed improvement following the introduction of multipurpose workers programme and rural health scheme. Thus there is a need for shift

in the focus of health strategy in favour of paramedical personnel which will have far reaching effects on the persistent high infant mortality.

Table 9

Health Delivery System and Levels of Infant Mortality in
Selected Developing Countries.

Country	Population (in thousands) Per Physician	Per Midwife	Infant Mortality Rate (per 1000 live births) 1970-75
First Group :			
1. Hong-Kong (1971)	1.7	5.4	17
2. Taiwan (1972)	1.3	1.9	28
3. Sri Lanka (1972)	4.1	3.7	45
4. Korea (Rep. of) (1971)	2.0	5.0	60
5. Mauritius (1971)	3.7	5.6	65
Second Group :			
6. Peru (1968)	1.9	13.0	110
7. Algeria (1969)	8.2	26.0	128
8. India (1971)	6.0	10.0	139
9. Iran (1973)	3.3	13.0	139
10. Afghanistan (1971)	19.0	37.0	182

Source : Based on D. A. Naidu, "World Consensus at Bucharest and India's Population Control Programme", *Economic Affairs*, Vol. 21, No. 3, March, 1976, Table I, P. 92.

Conclusion : Though there is strong case for orienting the developmental planning towards children, the development planners largely ignored the basic needs of Indian children. The fact that children constitute more than 40% of the population necessitates relatively a major share of the plan allocations—if not 40 per cent of the total allocations—for the child development of related sectors. In addition to this thrust, there is a need for reorienting the existing developmental strategies in the crucial sectors like social services, education, health etc. Vigorous population control programme is a precondition for the success of human resource development programme since it ultimately affects the base of the population

pyramid. Perspective planning for human resource development warrants planning for present generation of children who will be the future producers, consumers and reproducers.

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Institutional Finance : North-Eastern Region† Chapter

Arun Mukhopadhyay*

Commensurating with the lower pace of economic development, the North-Eastern Region† of India is very thinly-banked area in the country. Before the commercial banks' entry into the rural area with direct loan portfolios after nationalisation, the role of cooperative credit institutions which was very much meagre in number was the only institutional credit extended in rural areas of that region. In 1975, the Planning Commission classified this region as the lowest category where per hectare short-term advances from the cooperative credit institutions were less than Rs. 20.00. The revitalisation and reorganisation of cooperative credit and the entry of commercial banks into rural areas with direct financing facilities brought about a significant change in the region, as the following figures show :

Table 1 : Branch, Deposits and Advances (in Rs.)

Item	January 1969	January 1980
Bank Branch	90	699
Deposit (in crores)	49	394
Advances (in crores)	17	147

It is evident from the table that the branch expansion took place more than seven-fold, deposits expanded eight times and advances enlarged at the same rate as deposits. If we like to see the position in June 1978 separately for each State of this region, the following Table will show it :

† It includes Assam, Meghalaya, Manipur, Tripura, Arunachal Pradesh, Mizoram and Nagaland.

* Hyderabad.

**Table 2 : Bank Deposits, Advances and Percentage of
Advances to Deposits (June 1978)**

(Rs. in lakhs)			
State	Deposits	Advances	Percentage of advances to deposits
Assam	23,222	100,68	43
Meghalaya	35,83	5,72	14
Manipur	959	351	36
Nagaland	11,56	3,22	27
Tripura	19,25	7,91	41.090
Arunachal Pradesh	503	34	6.759
Mizoram	353	26	7.365

The table shows that Assam is comparatively better off in all the items presented; the most wretched position reflected through percentage of advances to deposits is Arunachal Pradesh's. The next position goes to Mizoram. Among the hill tribal-dominated States, Tripura and Manipur show better position next to Assam in respect of deposits, advances and their ratios. It is significant to note here that despite the expansion of commercial banks' operations, the position of Meghalay, Arunachal Pradesh and Mizoram is very discouraging.

The North-Eastern Council which was set up in 1971 to carry out the task of development through the individual state governments and initiate special development drive and supervise the process and progress of various developmental schemes in the Region identified the following factors responsible for the poor conditions in so far as the effective expansion of banking service in the Region is concerned :

1. This Region lacks that level of infrastructure which facilitates physical and human communications, resulting in inaccessibility of both material and advisory facilities needed to improve the production and income earning system. The topography and terrain and forest-covered areas and the scattered habitation pattern of the people over these areas

are the main hurdles to physical communication through roads, rail and airways. The isolated character of the people's habitation from main stream of life and their very closed economic pursuits within their own small jurisdiction and the lack of human communication with other areas, communities, the government agencies and other organisations like credit societies and bank branches are the specific problems standing in the way of the development of institutional credit which is only able to negate or reduce the influence of moneylenders in the remote villages.

2. Lack of initiative of the entrepreneurs—the enterprises which can create demand for credit and other facilities for increasing the nature and volume of production and income. In view of the apparent lack of business potentialities due to the general lack of demand which is caused by low economic capacity of the people and at the same time logistic difficulties of communications, and the problems of finance, the people seldom dare take any initiative for business enterprises—agriculture, agricultural processing, small and medium industries and tertiary activities. The situation is paradoxical; lack of business enterprises leads to the lack of banking enterprise, which in turn prevents business from thriving.
3. Lack of desirable commitments on the part of the banks to cover the areas with banking facilities. It, of course, stems from the same lack of business enterprise in the backward areas. The bankers do not find it viable to expand their branches and at the same time, they have also no initiative to organise clientele groups and adopt the area development programmes in those areas. The main difficulties faced by the banks in this process are the basic and physical infrastructure yet to be provided by the State governments, but the banks cannot create it out of their own initiative. This is what the bankers try to explain—the reason for the lack of bank's initiative in financing and developing the area.
4. Heavy reliance on subsidy by those state government. It adversely affects the motivation for self reliance and development of banking infrastructure. Because of political reasons

or other, the Government of India is soft in providing subsidy, particularly to the states like Arunachal Pradesh, Mizoram, Meghalaya, Manipur and Nagaland. One example will suffice to substantiate it : the total government expenditure on subsidy to Nagaland during the entire period of SFDA Programme is several times higher than in Bihar which is four times bigger than Nagaland and when the number of SFDA projects is also several times higher than in Nagaland. It is also doubtful if this subsidy has yielded any substantial results in Nagaland. The dependence on more subsidy has become a very common mode of development activities in those States and hampers the promotion of their own initiative and enterprise for their own economic gains.

5. Absence of clear land records adversely affecting and discouraging the banking procedural operations. In this Region, perhaps, in all the States land system is peculiar as compared with other regions of India. The community ownership of land and lack of land records with individual occupation or ownership prevents the execution of security-oriented banking dealings. It is procedural obstacle to banks for mortgaging lands against individual loans, while the question of loaning to the borrowers comes.
6. Lack of publicity of various facilities from various schemes and programmes. Because of the same communication difficulties—both physical and human—the governments could not succeed to establish a very prompt and active publicity machinery at all levels—district, block and village,—which is more important than any government work in this peculiar region. This portion also suggests that there is a very poor extension work at the block and village levels.
7. A very small number of village-level cooperative societies. The cooperative structure is weak both in number and in strength. Though weaker in general in the Indian standard, cooperative structure in Assam is better than in other States in the Region. Though village-level cooperatives are the only institutions which are very close to the people even in the remote villages, one society covers unusually bigger area.

In view of these difficulties resulting in a very poor banking facilities in coverage, the Reserve Bank of India set up a Working Group in 1976 to identify the factors impeding the flow of credit in the region and to recommend the suitable arrangements for expeditious disbursal of credit by commercial banks.

In pursuance of the recommendations of this Working Group on developing banking facilities in this region following decisions have recently been taken up :

- (a) A separate Banking Service Recruitment Board and upgrading of cadre of service for encouragement of the Bank officials to serve the backward areas.
- (b) Loan application forms and documents will be in local languages and terms and conditions for loans will be made uniform for the entire Region.
- (c) The hurdle of land records required by the banks while sanctioning a loan is surmounted by the provision that irrespective of land tenure status a loan up to Rs. 10,000 is permissible for agricultural purposes.
- (d) The Regional Rural Banks (RRB) which are now playing an important role in the field of rural credit at the close contact point of beneficiaries, have possibilities and potentialities to thrive in this Region. There are already two RRBs in Assam and one in Tripura operating satisfactorily. A few RRBs are being planned and established in other States of the Region.
- (e) To impart training to the local officials in the spirit of the local problems has been considered as an imperative for this region. Accordingly, three Lead Banks including State Bank of India, United Bank of India and United Commercial Bank have taken step to set up an Institute of Bank Management for training the government officials and bank officials to the tune of the local problems so that those can better be combated.
- (f) The cooperative structure both in the form of PACS, ADBS and of FSSs should be enlarged and strengthened. The intention is that more and more people will be effectively served by the banking service. At present as many as 2,400 people on average are covered by each of the banking institution in this Region, while the figure is 17,000 on average in the rest of the country. This big coverage would be narrowed down

by more dense network of credit institutions in the interior areas of the Region.

- (g) An attempt has been made to raise the credit deposit ratio from 36.4 to at least 50.00, and the loan recovery percentage from 34 to 60 through campaign for increased demand for credit and more productive investment of credit advanced for various purposes. Specifically, an Action Plan for the easier and bigger flow of credit has been taken up. The first feature of the Plan is to stimulate the demand for credit. It is envisaged that the Government should step in by the broad-based development work in the areas and strengthening their extension machinery of the States so that the people can be apprised of and taken to the scientific methods of cultivation. The farmers should be convinced that they can get more return by investing more in their fields and inputs like better seeds, fertilisers and plant protection chemicals which should be readily available to them and in time. To meet this need, they will have to approach the credit institution for their investable funds. At the same time, in order to cater to their increasing need for credit, the State Bank of India-type Agricultural Development Branches (ADB) should be expanded. Secondly, a structured publicity campaign should be undertaken to educate the farmers of taking facilities from the banks as well as from the governments.

Thirdly, animal husbandry has tremendous potential in this Region and the educated unemployed youth can be encouraged to take up dairy and poultry on commercial basis and small-scale industries and open agro-service centres in the rural areas. For these purposes, arrangement for proper training should be made by the Government at various centres.

Fourthly, since the present percentage of recovery (36 per cent) in this region is, no doubt, discouraging to the bankers, a model bill on Talwar Committee recommendations should be passed in the States following the example of Assam and Meghalaya where it was passed and implemented immediately.

Lastly, a novel experiment has recently been tried by the State Bank of India in Nagaland in which credit is extended through the Village Development Boards. The experiment was found successful. This experiment should be undertaken in other states also which are not culturally different from Nagaland.

The North-Eastern Council as an advisory and supervisory body for the development of this Region should take up more seriously the special development strategy with greater accent on infrastructure development and banking network promoting the pace and progress of development of the North-eastern Region.

Man-Power Planning—A Study on the Five Year Plan

R. Sahaya* and R. P. Verma*

The object of the present paper is to discuss the relationship between manpower planning and economic development of the country. A man born as he is with two hands to work with, he brings with himself the potentialities of increased production of goods and services. For a country having plenty of resources, absorption of extra manpower is not difficult. This, however, is not the case with a country having limited resources, high rate of population growth, and lack of infrastructural facilities. In cases such as these, it is essential to strike a balance between the availability of manpower and in-take avenues. The manpower resources can neither be utilised nor can its skill be developed except in relation to criteria based on economic development. Thus the aim of manpower planning is to maintain and improve the capability of the country to increase production in primary and secondary sectors by developing the strategies designed to enhance the contribution of manpower at all times in the future.

In India where the problem of unemployment is very acute, the main task of manpower planning is to generate more employment mainly for those who are unemployed and under employed. Their all-round development and preservation have to be arranged against the background of their fitness for a particular job

According to census figures, total work force increased from 120 million in 1921 to about 227 million in 1971, as shown below. Another 35 million joined the labour force during the years 1971 to 1978 bringing the total to 262 million.

Distribution of Work Force in 1921-71 (in Million)

1921	1931	1941	1951	1961	1971
120.00	124.00	121.00	140.00	188.67	226.87

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Up to 1971, 91% of the total manpower of 227 million were engaged in the unorganised sector. But between 1971 and 1978 there had been marked changes in the pattern of employment. First, landless agricultural workers increased by about 19 millions during the decade 1961 to 1971, increasing the share of landless workers from 18 to 24 percent among the unorganised work force. As the pressure of population in the rural areas grew up, small farmers, artisans and woman workers had to face evictions. Secondly, there was a decrease in the share of manufacturing sector through displacement of labour in the cottage and small scale industries. The net outcome of such shifts is that the overall share of agriculture even in the unorganised work increased by 1.8 percent. Thirdly, the significant feature was the importance of self-employment. About 61% of the total work force and 67% of the unorganised work force were self-employed in the farm and non-farm enterprises. During the 7 years from 1971 to 1978 the work force increased by 35 million of which 25 million workers were engaged in agriculture itself while only 10 million were engaged in non-agricultural activities. This confirms the general tendency of manpower flow in India. It shows that only a small fraction of the working force, about 10 percent, is able to enter the organised sector while the rest 90% are engaged in informal activities featured by underemployment and at times absolute and chronic unemployment.

The pattern of growth of work force between different sectors as thrown up by the Census shows some interesting shifts, exhibited below through relevant figures.

Sectorwise Distribution of Work Force 1921-71 (in Percentages)

Years	Agriculture	Mining & Manufacturing	Others
1971	73.8	9.8	16.4
1961	73.0	10.4	16.6
1951	72.0	9.3	18.7
1941	74.0	9.2	16.8
1931	72.0	8.7	19.3
1921	73.1	9.0	17.9

While agriculture absorbs about 2/3rd of the total work force, the share of minings and manufacturing sectors constitutes about 1/10th of the total, the break-up being 0.4% in mining and quarrying and 9.4% in manufacturing and repair sectors. The balance is engaged in others comprising (a) Electricity, gas and water, (b) Construction, (c) Wholesale and retail trade, etc., (d) Transport, storage and communications, and (e) Services. It is interesting to note that in agriculture, the highest employment was recorded during 1941. The pace could not be maintained however, there occurred a sharp fall in 1951. Again the curve changed with a gradual rise, during 1971 to 1978 showing significant increase of about 80 percent in the agricultural sector. It directly suggests that rural programmes, if followed strictly, can provide employment to the rural people and thereby restrict the flow of rural labour to the organised sector. As for mining and manufacturing sectors, its share was as high as 10.4 percent in 1961 but thereafter it showed a downward trend. During 1971-78 however, there appeared a minor increasing trend—the rate being about 1 percent or so i.e., absorbing about 10 to 11 percent of the total labour force. For 'Others', mostly in the tertiary sector, the highest employment was recorded in 1931 but thereafter it showed a downward trend. In effect, with increased economic activity, the share of tertiary sector should have shown a rising trend. This fall suggests that there is a lack of infrastructural facilities which is putting a hindrance to their normal growth.

The Planning Commission has made a projection distributing the total labour force for the period between 1978 and 1983 as shown below :—

Project of Labour Force (in Millions)			
Category	As on 31st March		Increase in 1983
	1978	1983	over 1978
1. Chronically Unemployed	4.37	4.97	0.60
2. Working Force			
Agriculture	192.43	213.82	21.39
3. Working Force			
Non-Agriculture	68.49	76.05	7.56
Total Labour Force	265.29	294.84	29.55

As per the projection, about 6 million would join the labour force every year during the coming 5 year period. The basic assumption is that the present trend would continue and the rate of growth of industrial production would continue to be 5 percent as at present. Thus the organised sector would absorb only 2.7 million of the 29.5 million new workers, the rest (about 27 million) will stay on in agriculture or move into some partial employment avenues in the informal sector or will become chronically unemployed. The projection further assumes that the distribution as between sectors is also not likely to change significantly.

Need for a New Strategy

Manpower planning has two parts. The first is manpower forecasting and the second is employment planning. Manpower forecasting is based on changes in technology : mechanisation and automation ; changes in organisational activity, methods and size ; changes in total economy and market ; sociological changes affecting supply of particular skills and willingness to undertake certain jobs. After the completion of forecast manpower employment planning is undertaken. Short-term plan takes into consideration the degree of changes available in the economy as also the ability of the economy to reshape its existing structure while for long-term planning the current situation has less immediate effects. Employment planning will determine the number of hands for the key sectors, availability of hands to fill them and planning for recruitment, movement and training.

However, in the Indian context, another element assumes high importance in any manpower planning i.e. projecting an absorption rate much higher than the growth rate of labour force with a view to absorbing the back-log of un-employed. It is agreed that a huge back-log of unemployed labour force cannot be absorbed immediately but only over a number of years. However, the magnitude is such as will be seen from the projection shown below. Effort has to be made to generate employment opportunities by reshaping our economic policies before any acceptable forecast is made. Exercise for utilisation, improvement and preservation will, therefore, have second priority. Adjusted Labour Force and Employment in standard person years*, 1977-78 is as under :—

Head	1977-78
Adjusted Labour Force (Million)	207 8
Estimated Employment (Million Standard Person Years)	167 1
Employment Gap (Million Standard Person Years)	40 7

* Standard person years of 9 months (or 273 days of 8 hours) per year. These figures are not comparable with labour force projections without converting the labour forces into standard person years.

It will be seen that the present employment gap is about 20% of the total labour force. Any exercise on manpower planning has to take into account the absorption of the present back-log as also future gaps. While the rate of growth of population is about 2.2 percent, the labour force growth rate is about 2 percent. This rate has to increase steadily if new entrants and the back-log have to be absorbed in employment.

A Revised Projection

The discussion in the foregoing paragraphs shows that the assumptions for the earlier estimates have a number of limitations. A set of new criteria may provide a better and reliable estimate. The author, therefore, ventures to attempt one of the many established techniques of forecasting, opt for time series analysis, couple with social objectives, for the decade 1980-89. This ten year period is chosen keeping in view the declared objective of the Government of achieving full employment within a period of ten years. But considering the magnitude of unemployment full-employment may not be achievable in a less time. However, a marginal shift in emphasis as between sectors may not make much difference. For our purpose, the time series is composed of four components—trend, cyclical effect, seasonal effect and random element. These components could be thought of as additive, which implies, for example, that seasonal fluctuations will be of the same magnitude whatever the trend level. A more common assumption is that they are multiplicative, which implies that the amplitude of seasonal variations will be related to the trend value. Using the latter model for the purposes of exposition, the value of the series at time 't' can be expressed algebraically as :—

$$V_t = T_t \cdot X C_t \cdot X S_t \cdot X R_t$$

(The four components as discussed above are represented by their initial letters.)

Thereafter, a twelve-month moving average has been calculated from monthly data by taking average of consecutive sets of twelve values, i.e.,

$$\frac{1}{12} (V_1 + V_2 + \dots + V_{12})$$

$$\frac{1}{12} (V_2 + V_3 + \dots + V_{13})$$

(In Million)

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Together with this, (a) the expected growth rate of labour force (b) the anticipated rate of growth for the major sectors (c) stepping up of public investment (d) intensification of agricultural development (e) extension of production support to small farmers and (f) regeneration of employment in the unorganised sector through an appropriate policy were taken care of for the purpose of projection. The results are summarised in the table.

Conclusion

An analysis of the projected figures would reveal that it would be possible to achieve near full-employment at the end of the 10 year period, back-log being only about a million, as against the present estimated back-log of 4 56 million. The main thrust will have to be on the rural sector which has tremendous capacity to absorb labour not only in agricultural operations but also in rural-based labour intensive cottage and small-scale industries. For this every village has to be connected with the world outside by black-topped roads and has to be given advantage of electricity without any break in its supply. Canal irrigation has to be provided for every field. It has been assumed that in the sixth plan period the required tempo will be generated for achieving a break-through in the seventh plan. It has to be recognised that the policy has to be pursued on a continuous basis. Once the tempo gets diffused, it would be a herculian task to generate the tempo once again. With a view to taking care of some unforeseen factors in the implementation of the plan programmes, the projection throws up achievable rates of growth. For labour force, the growth rate is 2.2% during the year 1978 to 1980, 2.1% during 1980 to 1984 and 1.9% during 1984 to 1989 as against the present growth rate of population of almost 2.2%. It could, however, be assumed that the rate of growth of the work-force does not decline the rate of growth of labour force which has remained higher during all the periods than the absorption rate for the resultant back-log of unemployed hands.

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A Note on Equilibrium Theory of International Trade and Underdevelopment

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One of the earliest attempts in economic theorisation with the notion of equilibrium has been in the field of international trade. The theory of comparative cost and the law of reciprocal demand are the corner stones of the classical theory of international trade, which, however, does not provide satisfactory answer regarding the reality of underdevelopment in a large number of countries. The basic premise of the theory is stable equilibrium and it is sought to be established with the assumption that the analysis can be carried out with the help of some 'economic factors' which are independent of other social factors. The theory attempts to show that trade works for equalisation of factor prices and incomes. At the same time the theory is silent regarding another world phenomenon—the growing inequality among the poor and rich nations ; here the theory seems to be biased against the poorer countries.¹ It is argued in this paper that the problems with the classical theory of international trade along with its neoclassical counterpart are deep rooted, the historical premise of the law of comparative advantage is not sound and the continuous adherence to the principle of free trade on the part of the developed countries is a theoretical eyewash regarding the problem of underdevelopment in a large number of countries. The paper is divided into two sections. In section I, we will deal with the classical theory of international trade and its neoclassical counterpart. In Section II, we will take up the critique of the mainstream theory and draw some conclusions.

Section I : *The Classical and Neoclassical Theories*

Theory is often experience put in a formal way. There are occasions when the economist's theory had been long overtaken by

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events In the late eighteenth and early nineteenth century Britain could establish herself as the workshop of the world and her steel and cotton textile industries produced much more than the domestic economy could absorb. The industrial empire needed many goods Britain did not possess. The result was a massive interchange of products between countries and the world was transformed into a set of economies dependend on and complementary to the British. Several such complementary economies developed at various times, mainly on the basis of specialised local products for which the Britain was the main buyer: wool in Australia, nitrates and copper in Chile, wine in Portugal are a few examples. Between 1600 and 1750 Portugal was converted into a satellite of Britain. The Anglo-Portuguese commercial treaties of 1642, 1654, 1661 and 1703 [Methuen Treaty] established an international division of labour between the two countries very much according to the principle of comparative advantage.² The relationship which emerged from these treaties made Portugal dependent on England, and she suffered from continuous deficit in the balance of payments leading to outflow of gold from the country. Portugal had no alternative to the sale of wine to England and this Ricardo interpreted as law of comparative advantage.

The law of comparative advantage, whether formulated in the Ricardian or in the neoclassical framework has rarely been challenged. The challenge of protectionist theory and its associated free trade doctrine has been integrated into the mainstream of international trade theory.³ The argument of free trade has been able to survive the attack by directing the attention to the malfunctioning of the market mechanism. The case for protection provided by the Keynesian framework does not pose a threat to the theory of comparative advantage, as it is argued that efficient use of fiscal policies can remove market malfunctions and reduce unemployment. But it is conceded that the efficacy of the fiscal policy depends on some crucial assumptions.⁴

Ricardo's theory of international trade is related to his theory of capital accumulation in a closed economy. The latter theory reflected his deep concern regarding the power struggle in England between the 'progressive' industrialists and the 'reactionary' landed interests. Ricardo provided a theory which proved positive gains from free trade and this was utilised by the industrialists. The

removal of the Corn Laws would lower the price of Corn and hence the demand for higher money wages would subside. The share of the produce going to the landlord would not increase. Thus the theory of comparative advantage is linked to the dynamics of distribution theory. But later presentation of his theory is detached from that aspect of distribution.

Ricardo showed that free trade would lead to gain for everybody in the society. When machines and natural resources are introduced, given the supply of labour in each country, the exchange prices are proportional to relative labour inputs in the international trade. Trade takes place between the limits set by the internal price ratios, which are determined by technical conditions governing labour inputs in each economy. These technical conditions again are influenced by the availability of machines and natural resources which are incorporated in the Ricardian model implicitly. So it is difficult in Ricardo's analysis to determine international values independent of labour theory of value. The classical solution to the determination of international values was found in the law of reciprocal demand of J. S. Mill. When demand is introduced as the determinant of equilibrium terms of trade, this implies a break from the Ricardian tradition. Moreover, one result of this theory is that small country will be gainer in the trade with the large country, since international values are determined by the cost condition of the larger country. But once many commodities and many countries are introduced, the presumption that international values will be determined by the cost condition of the larger country would not hold true.⁵

More serious is the case of deteriorating terms of trade of small countries vis-a-vis developed economies in modern world which jeopardizes the case for free trade. According to one study⁶ countries like Ghana and Brazil had to pay the following prices in terms of export commodity to buy one ton of imported steel :

	1951	1961
Ghana (lb Cocoa)	202	570
Brazil (lb Coffee)	158	380

Obviously the poorer countries are not benefited through trade with rich countries.

Neoclassical trade theory puts great emphasis on an automatic mechanism for the realisation of the gains from trade once unrestricted

play is given to comparative advantage. It also implies that economic growth caused by expansion of international trade is beneficial to the developing countries, if the prices of the traded goods reflect the appropriate relative factor scarcities. As tariffs influence terms of trade, a large literature has emerged which analyses the relationship between tariff, external terms of trade, economic growth and domestic income distribution. The major thrust in these studies is on enquiring how the discrepancy between domestic price structure and international prices affects the movement of endogenous factors and hence growth of domestic economy.⁷

Neoclassical theory of comparative advantage accommodates the substitution of the role of factor proportion as the primary determinant of comparative advantage as distinct from differences in techniques of production. This theory has shown the possibility of gainful trade when technology in all countries are identical but factor endowments differ. Again, it provides elaboration of the types of factors that can explain the basis of trade. Thus the conclusions derived from the static neoclassical model are very similar to those in the static Ricardian model. But two points are important. First, within the comparative static neoclassical model factor movement can substitute commodity movement to achieve the potential gains from international trade.⁸ If there are serious impediments both to trade and to the mobility of labour and natural resource in the international field, this theory gives a better argument for free flow of foreign capital. In ideal situation, the international capital flow leaves the workers with same income as with free trade : the domestic capital gets the same return and the balance is appropriated by the foreign capital. Secondly, the consideration of the issues like economic growth and technical progress has led to the concept of immiserising growth ; an economy, in the course of economic growth, may arrive at a position where it finds itself poorer in real terms compared to where it was at the beginning of the development process, if a set of conditions are satisfied.⁹ As a result the per capita income gap as between underdeveloped countries and developed countries will grow faster under trade than under autarchy.¹⁰

Section II. *The Critique*

One School of neo-Ricardian critics had tried to place economic,

social, political and historical forces as principal determinants of the terms of trade and the distributions of the gains or losses from trade.¹¹ It is argued that, while labour is immobile internationally, capital is internationally mobile and the rate of profits tends to be equal in all countries. Capital is treated as a produced input as in the tableau of Marx. It is assumed that wages are determined by historical and moral forces, and relative prices play no role in the determination of the composition of the bundle of commodities consumed. In this context Emmanuel has shown that there is a direct relationship between the international terms of trade and the cost of labour power, as measured by the bundle of commodities required to maintain labour.

But Emmanuel has given no convincing theory as to how wages are determined over time. The choice of wage as the independent variable leads to the suggestion that a poor country can change an adverse terms of trade in her favour by simply increasing the rate of wages. Such an argument cannot be correct. The Emmanuel model has some general characteristics when we compare it with both the Lewis surplus labour model and the Prebisch-Singer terms of trade model.¹² In dual economy model of Lewis wages are determined by the subsistence sector so that gains from trade in the modern sector are transferred to the richer country by remittances and/or manipulation of terms of trade. In the Prebisch-Singer case, increase in productivity in the export sector of an underdeveloped economy with stagnant domestic sector means fall in the price of exported goods relative to the price of imported goods. In the process the fruits of technical progress is transferred to the richer country, while surplus manpower in the domestic sector reduces wages further. This lowering of wages in order to increase employment will cause more international transfers of income through the export industries, even the domestic sector may be induced to start production for exports as productivity of labourer is lower compared to wages. All these aggravate income transfer to the richer countries and underdevelopment deepens in the poorer countries. Thus technical progress in the export sector is the factor which sets the machinery in motion.

In Emmanuel's model technical progress in the export sector of the underdeveloped country leads to a deterioration of the terms of trade and an increase in the profit of the capitalists in the rich country. The latter class can transfer a portion of this real value

to the workers of the rich countries in the form of higher wages, especially when the workers are unionized.

While Emmanuel's model has been characterised as inadequate,¹³ the dual-economy model along the line of Lewis gives a distorted picture of the process of under-development in the poor country.¹⁴ This thesis that development may be generated in the modern sector to the virtual exclusion of the other is hardly tenable. An analysis of the historical experience of Latin America and other parts of the world suggested that the expansion of the industrial capitalist system has not admitted dualism as described by these theories. Moreover, the supposition that development must be diffused from the modern sector to the traditional 'backward' sector, one may surmise, is a subtle theoretical justification of the integration of the backward underdeveloped world to the developed and rich capitalist countries.

Conclusion

Ricardo supported the cause of the capitalists in his own country and the law of comparative advantage enabled Britain to integrate the economies of a number of countries to her industrial empire. Subsequent development of the theory of international trade deceptively silent regarding the widening gap between the industrialised countries and the poor underdeveloped ones. The neo-classical trade theory has been following the Ricardian tradition by providing a theoretical platform of the international mobility of capital and the creation of enclave pattern of development in the agricultural economies in the name of dualism.

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- ** A Critique of the Theory of Underdevelopment.**

An Evaluation of the Poultry Marketing System in Bangladesh

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The specific objectives of the study are : (i) to study the system and organisation of the poultry marketing in the Bangladesh and (ii) to estimate the marketing cost and margin of poultry birds.

The present study is limited to the cock, hen and chicken among the various poultry birds. Five rural markets in Mymensing districts viz. Gouripur, Ishwarganj, Tarakanda, Amuakanda, and Muktagacha were selected as the focal point of study. Besides these rural markets, Dacca city markets as consumption point including large 'Arat' centre in the Fakirapol Bazar and five retail markets in the city viz. Moulavi Bazar, Roysaheb Bazar, Kaoran Bazar, Kaptan Bazar and New Market were selected.

For collecting data 60 samples consisting of Beparis, Aratdars and retailers were chosen. From five selected rural markets 25 samples of Beparis taking five from each market, 10 Aratdars from the only Arat centre and 25 Retailers taking five from each retail markets were randomly selected for interview. Data were collected by survey method from December 1975 to June 1976 covering peak and slack seasons of poultry. The analysis of data mainly involved tabular and descriptive technique.

Organisation of the Poultry marketing system

The structure and organisation of poultry marketing system in Bangladesh remain traditional where private marketing agents or intermediaries operate virtually without any Government regulations.

Institutional Classification—Poultry marketing involves a number of operations done at different stages by a series of intermediaries who link the producers with the consumers. There are three stages

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in the movement of poultry from the farmers to consumers : i) from the farmers to the rural markets i.e. to the Beparis, ii) from the rural markets to the arat centre i.e. to the Aratdars, iii) from the arat centre to the retail markets i.e. to the retailers. The Beparis, Aratdars and Retailers are functioning as intermediaries at various stages of marketing. Primary markets of the study areas are held twice a week while the Arat and Retail markets are open for transactions everyday.

Beparis—The Beparis are professional poultry traders who form the primary and basic institutions in the marketing system. A Bepari makes his purchase from farmers and sells consignment to the Retailers through the Aratdars or commission agents. They earn money through buying and selling of poultry. For buying purpose they employ both salaried and casual labourers. Most of them are independently organised and are not involved in any business other than poultry. Formally they need trade licence, but the checking of licence is not common.

Aratdars—The Aratdars are the commission agents who have their fixed establishments. They perform bargaining transaction with the Retailers and take a commission from Beparis on sale proceeds at the rate of Tk. 6.25 per hundred Taka. They provide short period storage facilities and have to perform the function of grading. They hire labourers as part time/full time salaried men for loading and unloading etc. Sometimes, they advance loan to Beparis on condition that the Beparis have to sell poultry through that particular Aratdar. The Aratdar needs licence for operating business. Most of them are independent but a few are also jointly organised.

Retailers—They are the last link in the channel of marketing. They buy poultry birds from Aratdar on the basis of open bargaining and sell them at their retail shops to the consumers. They purchase both on credit and on cash payments from Aratdars. They are professionals and have vast experience in the business. Sometimes they employ part time/full time salaried men for selling. They have their fixed establishments in the retail markets and need licence for operating business.

Functional Classification

Exchange—The Beparis generally make their purchase from the

village markets. Prices of poultry at rural markets are fixed by bargaining between intermediaries. The Beparies offer prices on the basis of eye estimation. The Aratdars and Retailers set prices according to the quality and usual grades of poultry birds.

Packing and Storage—The poultry birds are marketed alive. A kind of cage, locally known as 'Khacha' made by bamboo, is used for transportation and temporary storage. It may contain 50 birds of big size and such a khacha costs Tk. 5.00 to Tk. 6.00. The Beparies need storage of poultry birds for a maximum of two days due to the lack of timely transportation. After the poultry birds are bought from Aratdars they are stored in 'Khacha' by the Retailers in retail shops till they are bought by the consumers.

Transportation—Poultry birds are assembled from distant rural market places by rickshaw, buses, boats, headloads and railways. Poultry birds are carried by headloads from Arat to different retail markets in the Dacca city. Sometimes, push-cart is also used but it is costlier than the headload.

Grading and Standardization—In the rural markets grading is done on the basis of eye estimation of particular lots. Mainly size, weight, age or tenderness, sex, disease freeness are considered as the criteria of judging different grades. At the Arat centre grading by eye estimation is practised by Aratdars since there is no officially recognised grading system. The different grades used by the Aratdars on eye estimation are Star, Heavy, Medium, Fowl, Chicken and Spring chicken respectively.

Financing—The Beparis are mostly self financed. 72 percent of Beparis are doing their business with self finance and 28 percent have taken conditional loan from Aratdars. Most of the Aratdars are self financed. 30 percent of Retailers are self financed and 70 percent purchase on credit from Aratdars. Only Aratdars are getting loan from bank against the collateral of their movable and immovable properties.

Risk-bearing—At the rural market, the Beparis themselves bear the risk. At the Arat, Aratdars actually have to bear no risk, because they act only as a commission agent. At the retail level, risks are borne by Retailers themselves. There is no institution to bear the risk in poultry marketing system.

Market Information—The Beparis get market information from

their higher intermediaries or by personal contact. Forty percent of Beparis do not get any market information. The prices of urban markets are issued by the Agricultural Marketing Directorate through Radio broadcast. The weekly price bulletins of the Directorate hardly reach the producers or intermediaries.

Cost of Marketing and Margin

Marketing cost—The marketing functions of poultry are not identical throughout the whole channel and, therefore, the nature and type of cost at various stages are different.

Marketing cost of Beparis—The marketing process gets its start by the Beparis who perform assembling, transportation, loading, unloading etc. The Beparis sell poultry to the Retailers through the Aratdars. They have to pay a fixed amount of commission known as “Aratdari” to the Aratdars for providing short term storage, negotiating with Retailers and selling their poultry birds. This Aratdari cost represents TK. 13.41 per hundred birds i.e. 35.09 percent of the total cost. This is the single largest item of cost of the Beparis.

The average total costs of marketing of the Beparis in the five primary markets vary from TK. 27.97 to Tk. 44.32, the average being TK. 38.21 per hundred birds. The average cost varies from market to market due to the regional differences in respect of labour charges, transportation costs etc.

Marketing cost of Aratdars—The Aratdars are mainly commission agents and make arrangement for selling poultry to Retailers through bargaining, doing the function of grading and providing short-term storage facilities.

The average cost per hundred birds incurred by them at Arat centre is estimated to be TK. 3.76. The commission (Sammani) given by Aratdars to Retailers is TK. 1.10 per hundred birds i.e. 29.25 percent and represents a large portion of their total costs. [Table 1].

Marketing costs of Retailers—The Retailers after purchasing from Arat, transport birds to the disposal centre and ultimately sell to the consumers at retail markets. The average cost per hundred birds was estimated to be TK. 10.95. During purchase they have to pay Rickshaw fare for their own conveyance. Besides, during the period of selling they bear expenses like food, pan, biri etc.

Table 1 : Cost of Marketing of Aratdars

Cost items	Average cost per hundred birds in Taka.	Percent of total cost.
1. Transportation*	0.38	10.11
2. Personal expenses	0.55	14.63
3. Salary to employees (Wages)	0.97	25.80
4. Feeding of birds	0.05	1.33
5. Commission to Retailers (Sammani)	1.10	29.25
6. Commission of Bepari (Sammani)	0.38	10.11
7. Rent for shop (daily)	0.08	2.13
8. Khajna (toll)	0.19	5.05
9. Tips and donations	0.06	1.59
Total	3.76	100.00

* Transportation cost means conveyance charges for the recovery of credit from Retailers.

which may be called personal expenses. This cost represents TK. 3.56 per hundred birds i.e. 32.51 percent to the total cost and their largest cost item.

Total cost of marketing of poultry—Total marketing cost includes all the cost items incurred by the different marketing intermediaries from the rural markets to the ultimate consumers.

Calculation of marketing margin—In the present study marketing margins have been computed by selecting specific lots of poultry and tracing them throughout the marketing system. The average cost plus/minus profit and loss per hundred birds for each group of intermediary has been used as a technique of calculation of marketing margin.

The study revealed that TK. 188.32 which constituted 73.93 percent of total selling price by retailers was received by producers-farmers. Marketing margin appropriated by the Beparis and Retailers were TK. 46.48 and TK. 19.93 respectively out of which TK. 8.27 and Tk. 8.98 respectively were accrued as net profit.

Total marketing margin (TK. 66.41) which is 26.07 percent of the selling price of one hundred poultry birds and the total marketing

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Trends in Inter-State Sugarcane and Sugar Production in India

Y. S. Negi and M. S. Grewal*

Sugarcane which covers about eight per cent of net area sown in India has a place of importance in agriculturally dominated Indian economy. Of the total sugarcane acreage in India, 80 per cent falls in the seven important sugarcane producing States viz., Andhra Pradesh, Bihar, Gujarat, Maharashtra, Karnataka, Tamil Nadu and Uttar Pradesh. Also, these seven states together contribute more than 90 per cent to the sugar production of the country. Keeping these facts in view the present study analyses the trends in inter-state sugarcane and sugar production in these important States in about the last two decades.

Materials and Methods

To analyse the trends in area under and production of sugarcane in different states the data published by the Indian Sugar Mills Association have been considered. Shares of different states in total area and production have been shown as proportions to the total. To view the growth in area under the production of sugarcane and sugar an exponential function of the following type was fitted in each case.

$$Y = a(1 + r)^x$$

Where :

Y = area under/production of sugarcane/sugar respectively.

a = constant.

r = rate of change (in area under/production of sugarcane/sugar respectively),

X = time in each case.

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The conclusions arrived at for the selected states were compared to the all India trend,

RESULTS AND DISCUSSION

A) Contributions of Different States to Total Sugarcane Agerage

In 1950-51 the selected states covered about 83 per cent of total acerage under this crop. Then this declined to 80 per cent in 1960-61. Though the contributions of these seven states seem to have increased yet it is evident that they could not attain the 1950-51 percentage of 83 per cent. During the decade 1970-79 the share varied from 80 to 82 per cent and it was about 82 per cent during 1978-79. Further, in whole of the period under study Uttar Pradesh had a major share in the sugarcane acerage. This share of the state was about 71 per cent in 1950-51, 69 per cent in 1960-61 and about 64 per cent for rest of the period of total share of seven selected states. The state of Uttar Pradesh was followed by Bihar, Maharashtra and Tamil Nadu in the acerage share.

There has been a highly significant increase in the sugarcane acerage in the states like Tamil Nadu, Karnataka, Maharashtra and Gujarat. On the other hand, sugarcane acerage decreased by about 12 per cent in the case of Uttar Pradesh and by about 56 per cent in the case of Bihar in 1978-79 as compared to sugarcane acerage in 1950-51 respectively.

B) Contribution of Different States to Total Sugarcane and Sugar Production

The state-wise shares in the sugarcane production show that the selected seven states' contributions to sugarcane production varied between 82.65 (1975-76) and 87.33 per cent (1950-51). The pattern of contribution of different states to overall sugarcane production was found to be the same as in the case of sugarcane acerage. Here, again, the shares of U. P. and Bihar, which cover 57.83 and 6.30 per cent in 1950-51 have been reduced to 40.02 and 2.67 per cent in 1978-79 respectively. The share of Andhra Pradesh was more or less consistent during the period of study. The remaining four states had

more than doubled their shares to the nation's sugarcane production in 1978-79 as compared to their shares in 1950-51.

The critical observation of the two tables shows that productivity of sugarcane in U. P. & Bihar is lower as compared to the other five states which had only 22.82 per cent of sugarcane acreage (1978-79) but they had added 41.51 per cent to the nation's sugarcane production,

The regional variations in sugar production which show that the sampled states processed about 84 per cent of the total sugar production, of which about 54 per cent were processed by U. P. alone. By 1960-61 those states together increased their shares to 92.37 per cent. However, the shares of U. P., Bihar and Tamil Nadu decreased considerably during that period. From 1960-61 onward these states together maintained their shares in the national sugar production at more than 92 per cent but there had been a large variation in the contribution of different states. The states of Gujarat, Maharashtra and Karnataka had increased their contributions almost continuously from 0.93, 17.27 and 3.96 per cent in 1960-61 to 50.07, 35.93 and 0.33 per cent respectively in 1978-79. The share of U. P. in the national sugar production in 1978-79 was (24.97%) less than half of its share (53.85%) in 1950-51 and the share of Gujarat declined from 20.48 per cent to mere 4.40 per cent over the same period. Share of Andhra Pradesh in sugar production, however, was almost nil in 1950-51 but during the last two decades it has added to its share ranging between 5.31 per cent in 1978-79 and 9.72 per cent in 1971-72. Similar situation has also been observed in the case of Tamil Nadu. The Gujarat State has shown a continuously increasing share in sugar production from just 0.93 per cent in 1960-61 to 5.07 per cent in the year 1978-79. Same was the situation with Maharashtra and Karnataka, contributions of which have increased from 17.27 and 3.96 per cent in 1960-61 to 35.93 and 8.33 per cent respectively in 1978-79.

Growth in area under sugarcane and production of sugarcane and sugar have been viewed from different states and the results have been given in Table 1. It is evident from the table that the rate of growth of area under sugarcane in the country during the seventies was about eight times higher than the growth rate of the sixties. This rate of growth, on an average, was 1.39 for the period 1960-79 under review. Among the states under study Tamil Nadu recorded substantial growth in the area under sugarcane followed by the states of Gujarat, Karnataka, and Andhra Pradesh. States like Bihar and Uttar Pradesh recorded a

decrease in the area under sugarcane, though Uttar Pradesh improved in the situation in the seventies.

The similar pattern of growth had been observed in sugarcane and sugar production. Again, it was during the seventies that production of cane and sugar recorded increase over the previous period. The higher growth rate in the case of sugar production can be attributed to the increase in area under sugarcane, improved agronomic practices and varietal improvement of sugarcane during the period. The States of Gujarat, Karnataka and Maharashtra recorded a significant increase in the production of sugar and the states like Bihar and Uttar Pradesh, in line with the trend in area in general, did not fair well in production sphere also. Again in the seventies there was improvement in the situation as compared to previous decade.

Conclusion

From the study it can be concluded that there has been a significant increase in sugarcane acreage in Tamil Nadu, Karnataka Maharashtra, and Gujarat. In the case of Uttar Pradesh sugarcane acreage declined by more than 10 per cent. On the production front, it is revealed from the study that productivity in U. P. and Bihar is less than that other states under study which have added significantly to the nation's sugarcane production. As far as growth of area under sugarcane is concerned, it was found that this growth was more in the seventies than in the sixties. Again, in the case of production also the trend found was the same as that of the acreage under sugarcane in the seventies.

Economic Trends : U S A

The U. S. real gross national product (measured in 1972 dollars) grew at an annual rate of 8.4 per cent in the first quarter of 1981, compared with a 3.8 per cent annual rate of growth in the fourth quarter of 1980. During the first quarter of the year, the U.S. economy, grew at a faster rate than the previously estimated annual growth rate of 6.5 per cent. The upwardly revised growth rate reflects, primarily, a smaller real decline in business inventories than had previously been estimated and a further improvement in net exports, which reflects a larger increase in total exports during the quarter and a steeper decline in petroleum import. The revised growth rate also reflects large increases in personal consumption expenditures, fixed investment, and federal government purchases. In current dollars, GNP rose at a seasonally adjusted annual rate of 19.3 per cent in the first quarter, to (dollar) 2,853.8 billion. This compares with the previously estimated rate of 14.9 per cent.

Table : 1 Growth in Area, Under Production of Sugarcane and Sugar in Different States (1960—79)

Component/Period	Area Under Sugarcane			Sugarcane Production			Sugar Production		
	I	II	III	I	II	III	I	II	III
Andhra Pradesh	5.32*	3.25*	2.38*	5.17*	1.28	3.30	5.25	3.11	3.42*
Bihar	-2.74	-1.69*	-1.69*	-2.33	2.67	1.91*	-1.86	1.86	-1.55**
Gujarat	4.40**	6.56*	4.40	3.58	8.17*	4.35*	12.31*	6.22*	14.15*
Maharashtra	3.49*	4.47**	2.54*	1.12	9.17*	4.16*	7.55*	10.95*	8.39*
Karnataka	2.43*	6.81*	4.30*	4.78*	4.47*	3.80*	5.64	12.47*	9.58
T. Nadu	7.23*	20.34*	8.97*	7.92*	6.46*	6.39*	11.32*	6.08	7.30*
Uttar Pradesh	1.21	2.92	1.16*	-1.05	3.58*	1.71*	0.35	5.07**	2.02
All India	0.42	3.14*	1.39	2.21	3.94*	2.76*	3.28	7.97**	4.95*

I = 1960-70 II = 1970-79 III = 1960-79

* Significant at 1 percent level of probability.

** Significant at 5 percent level of probability.

Housing In India—Problem and Policy

Francis Cherunilam*

The three basic necessities—food, shelter and clothing—together form the most important item in household spending throughout the world. The World Bank points out that new residential construction accounts on an average for some 20 per cent of fixed capital investment in developing countries. Housing is a major outlet for private household savings and provides greater employment at low foreign exchange costs. It can provide substantial private and social benefits in offering shelter from the elements, space for work and leisure, and, depending on its location, access to sanitation, education and health services and to employment opportunities. The Indian Planning Commission has realised that the role of housing in economic development, both as an end and a means, is an important one ; as an end, housing is an essential ingredient in the basic requirements of civilised living ; as a means, besides adding to National Income, housing is a strong motivator of savings and plays an important part in the generation of employment. However, even after three decades since the inauguration of planning “to create conditions in which living standards are reasonably high and all citizens, men and women, have full and equal opportunities for growth and service”, the backlog of housing shortage is increasing at an alarming rate. Though no precise data are available about the housing shortage in the country, different estimates clearly indicate that the shortage has been continuously on the increase. The 1971 census placed the shortage at 14.3 million units consisting of 11.6 million in rural areas and 2.7 million in urban areas. According to the estimate of the National Building Organisation, the housing shortage has increased from 15.6 million units (11.8 million in rural areas and 3.8 million in urban areas) on the eve of the Fifth Plan to 19.7 million units

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(14.8 million in rural areas and 4.9 million in urban areas) at the beginning of 1979. According to a paper prepared by a Sub-committee of the Federation of Indian Chambers of Commerce and Industries on housing, housing shortage in 1977-78 was 27.49 million and it is expected to increase by another 17.04 million by 1987-83. According to the paper, the shortage is estimated to be increasing by 17.04 lakhs every year.

The First Plan provided for the provision of various infrastructures for carrying out a massive housing programme. The period of the First Plan thus witnessed the first steps in a national housing programme. The core of the housing policy enunciated in the First Plan was to concentrate efforts on the improvement of housing conditions of industrial workers and low income groups through housing schemes involving an element of subsidy limited to 50 per cent of the cost of construction for the State Governments, and 25 per cent in the case of employers and cooperative housing societies of industrial workers. The plan also suggested reduction in building costs especially in areas such as (a) materials and labour, (b) architectural designs, (c) structural designs and (d) programming of works and administrative and executive details.

Introduction of new schemes and modification and expansion of the scope of the old ones were the main features of the policy in the next two plans that followed. The Subsidised Housing Scheme started in 1952 was revised in 1966. The Low Income Group Housing Scheme was introduced in 1954. The Subsidised Housing Scheme for plantation workers, introduced in 1956, was revised in 1967. The Slum Clearance and improvement Scheme was introduced in 1956, the Village Housing Project Scheme in 1957, the Middle Income Group Housing Scheme in 1959, the Land Acquisition and Development Scheme in 1959, the Rental Housing Scheme for State Government Employees in 1959 and the Jhuggi and Jhopri Removal Scheme (in Delhi) in 1960.

The Fourth Plan felt that emphasis should be laid on limiting the rise in prices of land, providing financial assistance to cooperatives and private efforts and assuming legal powers for reconditioning of slums. An important step taken during the Fourth Plan was the setting up of the Housing and Urban Development Corporation (HUDCO) in 1970 by the Central Government with the object of accelerating the pace of housing and urban development throughout the country.

The main thrust of the programmes in the Fifth Plan was directed

towards ameliorating the conditions of the backward sections of the society. This was sought to be achieved by augmenting the programmes for the construction of housing colonies by State Housing Boards and by taking up on a large scale a programme for the provision of house sites for landless labourers in rural areas. While the bulk of the programme was undertaken in the State Plans, the activities of the HUDCO in the Central Sector were geared up to meet the expanding demand. Separate provisions were made for the scheme of subsidised housing for plantation labourers and dock labourers. Emphasis was also placed on Research and Development activities for generating better and cheaper designs.

The Sixth Plan (1978-83) proposes to solve the housing problem in a 20 year time frame. It would require the construction of enough houses to meet a) the requirement of additional households due to growth of population, b) the replacement requirements of obsolescent dwelling units, and c) to wipe out the existing backlog.

The achievement of such a goal would, according to a recent study, involve an investment of the order of Rs. 97755 crores—Rs. 64855 crores on urban housing and Rs. 32900 crores on rural housing involving construction/improvement of 33.20 million units in urban areas and 97 million in rural areas. For the quinquennium 1978-83, it has suggested an outlay of Rs. 12955 crores—Rs. 9455 crores in urban housing and Rs. 2690 crores in rural housing, yielding 5.7 million units in urban areas and 13 million units in rural areas. This would mean an average cost of construction of about Rs. 16600 per unit in urban areas and Rs. 2690 in rural areas. The VI Plan visualises an investment of Rs. 11000 crores in private sector and Rs. 1208 crores in public sector. In addition, investment by public sector enterprises, departmental undertakings and grants in aid institutions may be of the order of Rs. 200 crores to Rs. 250 crores. The achievement of physical targets as visualised by the study, however, depends on a preponderant portion of the programme mix, especially in the public sector, of site and services scheme costing about Rs. 3000 per unit. Such an approach highlights, therefore, the importance of a) slowing down growth of urban population especially in large cities where building costs are many times than those in small cities and rural areas, b) Giving much greater attention to low cost housing techniques and standard so that there is a sharp fall in unit costs c) Bringing consequential modifications in building bye-laws, land

use control, minimum plot requirement, land requirement for roads and even construction standards and specifications for roads etc. to give effect to suggestions contained in (b). d) Avoidance of direct subsidies in urban housing. Where direct subsidies are unavoidable, they should be small and in the form of infrastructural facilities so as not to create a large difference between the market value and the subsidised prices, e) Providing of stimulus and support for private housing especially in the middle and lower income groups so as to channel increased savings into housing will have to be accompanied by steps necessary for decreasing the cost of urban land. The present ratio—4 units of private sector housing to one in the public sector—will have to go up.

Till the end of the Fourth Plan, Government's approach to the housing problem was mostly devoted to the urban areas. It is only since the Fifth Plan that attempts to deal with the rural housing problem have been made mainly by the provision of land sites to landless labourers. It is estimated on the basis of the latest available NSS data that 17 million rural labour households without land will need housing assistance by 1988. As reported by the State Governments 7.5 million landless families have so far been allotted house sites free, still leaving about 10 million families without a site. A provision of Rs. 425 crores has been made in the Revised Plan for giving financial assistance for acquisition of plots and housing construction. The assistance will be at the rate of Rs. 500 to Rs. 750 per site which has been found to be adequate in certain states which have adopted low cost construction. A sum of Rs. 500 is proposed to be given to those who have already been allotted sites and Rs. 750 to those who are yet to be provided house sites also. The above amounts are towards the cost of developed plot, provision for a well for a cluster of 30 to 40 families, approach roads and assistance for building materials. The programme visualises that all labour inputs will be provided by beneficiaries. Approximately 7 million landless workers are likely to be benefited from the scheme, thus covering a substantial number of this section of the population. In general the State Governments are implementing the programme on the basis of norms and standards visualised in the plan. However, some State Governments are currently implementing the programme on a more ambitious scale involving considerable subsidy/loan. This approach involves substantial discrimination as it will leave a large number of landless people out of the

scheme. If the target of 7 million people to have benefit from the schemes is to be achieved during the plan, the State Governments will have to adhere to the norms and standards visualised in the plan. In addition to the requirements of rural landless, there is evidently a large scope for development of housing activity in rural areas. However, on account of constraint of funds, only limited provisions are made in the State Plans. The HUDCO has also entered into the field of rural housing and provides loans for construction in rural areas.

As the following table indicates, investment in housing as a percentage of total investment has been declining, both in the private and the public sector. Investment in public sector housing as a percentage of total public sector investment amounted to 16 per cent in the First Plan but only 3.3 per cent in the Fifth Plan. In the case of private sector, the share of housing dropped from 50 per cent in the First Plan to 22.5 in the Fifth Plan. And no wonder, the backlog of housing shortage has increased sharply. The statistics quoted in the preceeding paragraphs very well show that to solve the housing shortage within a bound time an enormous step up in the investment is required both in the public and the private sector. Apart from mobilising the local resources, assistance of international organisations and institutions like the World Bank will have to be made use of for this purpose. Even when finance is available, house construction is seriously constrained in our country by the non-availability of building materials. Hence, it is a must that effective measures are taken to improve the supply position of building materials.

How unbearable is the cost of housing units for the households of the lower strata is pointed out in the Draft Sixth Plan 1978-83. The Draft reveals that although various schemes executed by local housing boards are intended to construct houses for the economically weaker sections (EWS), i.e., incomes below Rs. 355/ per month and the lower income group (LIG) with incomes between Rs. 351/ and Rs. 600/ per month, in practice the cost of the units built has been such that the LIG units have largely been taken by people belonging to the middle income group (MIG) (Rs. 601 to 1500 per month) and houses built for the MIG have generally been taken by the upper income groups. The only class of employees who has had an appreciable level of Government or quasi-Government support in housing.

INVESTMENT IN HOUSING

	First Plan	Second Plan	Third Plan	Three Annual Plans	Fourth Plan	Fifth Plan
	1951-56	56-61	61-66	1966-69	1969-74	1974-79
Public Sector investment in housing (Rs. in crores)	250	300	425	250	625	1,044
No. of units built	47,764	127,771	277,021		99,452	133,554
Land sites to rural landless (in lakhs)					5.00	68.00
Investment in public sector housing as a percentage of total public sector investment	16.0	8.2	7.0		4.6	3.3
Private Sector investment in housing (Rs. in crores)	900	1,500	1,125	950	2,175	3,636
Investment in private sector housing as percentage of total private sector investment	5.00	32.3	26.2		24.2	22.5

Sources : Draft Five Year Plan 1978-83 (Planning Commission, 1978),
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 Group on the Role of the Banking System (Reserve Bank of
 India, 1978).

is employees of Government itself including the Railways, Posts and Telegraphs, public sector corporations, and autonomous bodies like the Atomic Energy Commission, Council of Scientific and Industrial Research, etc. The Fourth Plan noted that "there has been some decline in standards, especially housing. The provision of housing through private or cooperative effort is usually directed to the affluent middle class and the incoming poor in metropolitan areas gives rise to slums. Further, the experience of public housing so far is that its unit cost is high and that with the constraint of resources it is not possible for public operations to touch even the fringe of the problem." The situation has, perhaps, only worsened in recent years. As the Report of the Expert Committee on "Performance approach to cost reduction in building construction" prepared for Government of Kerala in 1974, observes, "the time has come for a strong campaigning towards simple and comparatively less expensive buildings for all. We decry any move towards low cost housing for the 'poor'. Reforms, re-thinking, re-planning and redesigning must start at the top and spread through all strata of society."

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India's Balance of Trade During the Sixth Plan (1980-85) : An Estimation

Sakiya Khan*

Foreign trade occupies a place of strategic importance in the economic development of the less developed countries. Balance of trade and economic growth of a country are very closely related. This relationship is one of inter-dependence rather than of unilateral causation.

In India, foreign trade constitutes the life-line of its economy. While export expansion, to a large measure, has helped in minimizing dependence on foreign aid which has till recently been considered indispensable for accelerating pace of economic growth, imports have played a significant role in hastening the process of industrialisation. Although the importance of export promotion in achieving the goal of self-reliance was recognised long back, the gestation period to translate partially this objective into reality has been rather long.

India's foreign trade has undergone many significant changes during plan period. The development programmes embodied in the five year plans particularly since 1956 gave utmost priority to the import of capital goods for capacity creation. As a result, imports rose both in absolute terms and relative to national income, particularly since 1956, on the other hand. India's export earnings from traditional commodities like jute and tea have either remained stagnant or have risen insignificantly. These differential growth rates of imports and exports have created a fundamental disequilibrium in India's balance of payments.

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Table I gives the broad picture of foreign trade.

Table 1 India's Foreign Trade Over The Plan Period
(In crores of rupees)

	Imports	Exports	Balance of trade
Average During First Plan (1951-56)	730.2	621.8	— 108.4
Average During Second Plan (1956-61)	1078.8	612.6	— 467.2
Average During Third Plan (1961-66)	1223.7	747.0	— 487.7
Average During Annual Plans (1966-69)	1998.2	1237.7	— 760.5
Average During Fourth Plan (1969-74)	1973.0	1810.8	— 163.8
Average During Fifth Plan (1974-78)	5140.5	4434.8	— 788.6

Source : Calculated from the data available in the relevant Reserve Bank of India Bulletins.

Our performance during the first plan had been quite satisfactory. Though there had been a persistent adverse balance of trade, yet during this period our exports financed 75 per cent to 93 per cent of imports of various years of the plan, and the overall percentage of exports for the entire first plan period accounted for 85.2 per cent of imports.

The trade gap is widening since the second plan due to the heavy industrialisation. The Government has initiated the process of industrialisation, through fiscal, physical and monetary interventions. This implied an attempt to achieve self-reliance in food supply and raw materials on the agricultural front, and production of investment goods in the manufacturing sector.

This continued during the third plan. This plan was characterized by a high rate of growth of imports (7.5 per cent) coupled with a smaller (4 per cent) improvement in exports so that over the period it could pay formally 61 per cent of the import bill,

Exports financed 91 per cent of imports in the fourth plan as a result of greatly improved performance of exports which got a

stimulus from the recession that preceded the Fourth Plan, the devaluation of 1966 and a 'general shift in policy from import substitution to export promotion in the mid-sixties. Several incentives like cash subsidies drawback of taxes liberal imports for export sector followed. Currency floats since 1972 resulted in washing out of any overvaluation of the rupee and the commodity boom of 1972-74 which affected imports very seriously, inflated export receipts in money terms. Exports in the fourth plan recorded a growth of 15.8 per cent in money terms, though improvement in volume was 4.2 per cent which was only marginally above that in the third plan.

The four years of the fifth plan (1974-78) saw over 85.7 per cent of imports financing through exports, although for the year 1976-77, it was over 100 per cent. In 1974-75 when the full burden of oil and fertilizer's price escalation was met the imports recorded an increase of 52.9% while exports increased by only 31.9 per cent resulting in a deficit of Rs. 1,190 crores. By 1976-77, imports of foodgrains and fertilizers had tapered off, in steel and aluminium we became net exporters while the quantity of crude import stayed put around 1.4 crores tonnes so that there was a marginal trade surplus of Rs. 72 crores. Exports have increased at a compound growth rate of 19.1 per cent in the period, 1974-78 (and 62.3%) in terms of volume which is impressive in view of the 50 per cent deterioration in terms of trade,

In the light of the discussion above, the objective of this paper is to estimate the prospects for India's foreign trade during the sixth five year plan (1980-85).

This is done on the basis of the 'two gap' models of development where the "foreign exchange" gap, i.e., the difference between the minimum required imports and the total exports, is given by

$$m_t - E_t = m_0 + B (V_t - V_0) - E_0 (1+r)^t$$

where the symbols have the following meaning :

m_0 — the observed initial level of imports.

V_0 — the Gross National Product in the initial year.

$V_n = V_0 (1+r)^t$, r being the compound growth rate and ;
the number of years after 0.

E_0 — the initial level of exports.

B — the marginal rate of imports per additional unit of GNP.

e — rate of growth of exports.

The estimation of the balance of trade during the sixth plan is done on the basis of the past data of exports and imports provided by RBI Bulletins.

1. Rate of growth of export (r) has been estimated on the basis of past trend of exports from 1956-57 to 1977-78 and found to be 10.70% per annum..

2. Rate of growth of GNP (r) has been estimated on the basis of the past trend from 1956-57 to 1975-76 and found to be 7.76% per annum.

3. B has been estimated on the basis of the ratio of increase in imports to increase in GNP in between the years 1956-57 and 1975-76, and found to be equal to .0825.

4. 1975-76 has been taken as the base year for estimating

E_t and V_t .

5. The initial level of imports is Rs. 5265.22 crores.

1. There is a growing literature on the "two-gap" models of development, of which the following are representatives :
R. I. McKinnon "Foreign Exchange Constraints in Economic Development and Efficient Aid Allocation", The Economic Journal, (June 1964) ; H. B. Chenery & A. Strout, "Foreign Assistance and Economic Development", American Economic Review, (September 1966).

The following table gives the estimated values during each of the years of the sixth plan.

TABLE II

Year	V_t	$E_o (1+r)^t$	$V_t - V_o$	$B(V_t - V_o)$
1980-81	94444.03	6720.79	29448.04	2429.46
1981-82	101772.89	7439.91	36776.89	3034.09
1982-83	109670.47	9235.98	44674.47	3685.64
1983-84	118180.90	9117.24	53184.90	4387.75
1984-85	127351.74	10092.78	62355.74	5144.35

On the basis of the estimated figures given in Table II, the prospects of India's foreign trade during the entire sixth plan has been calculated. This is given in Table III

TABLE III

India's Foreign Trade Prospect 1980-85

	(Rs. in crores)
year	Balance of Trade
1980-81	-973.89
1981-82	-859.40
1982-83	-714.88
1983-84	-535.73
1984-85	-316.79
Total	-3400.69
Annual average during	
1980-85	-680.14

On the basis of the above estimation, India's external trade position during 1980-85 is likely to remain unfavourable. The deterioration in the balance of trade which was already evident in 1979-80 gathered further momentum during 1980-81 owing to sharp increase in imports that far eclipsed the growth rate in exports. As is well known, this rise in imports is largely because of higher payments for crude oil and petroleum products, fertilizers and edible oils. Exports during 1980-81 continued to be sluggish owing to domestic constraints on production, inflation and difficult trading conditions abroad.

Thus the deterioration in the trade balance stemmed from a big spurt in imports that was markedly higher than the export growth rate—a situation which may well persist beyond 1980-81.

A Study of Economic and Technical Efficiency in Raising Raya Crop in Punjab

* * *

Inder Sain, Tirath Singh and J. S. Saini

The new farm technology based on the rational use of water, fertilizer and seed has proved to be conducive to high yields in view of their positive relationship. Since the fertilizer is an important ingredient of the new farm technology and is the most expensive one, its use is subject to much fluctuation due to frequent changes of its prices. The shortage of oilseed production and the recent hike in fertilizer prices have stimulated to study the input-output relationship in Punjab since it stipulates a shift in the price parity resulting in new economic equilibrium. The specific objectives of the study are

- a) to examine the level of nitrogenous fertilizer use at which farmer can maximise his profit, and,
- b) to identify that price parity of input/output at which the twin objective, i. e. maximum profit as well as maximum output of a particular crop may be obtained.

Design of the Study

The data used in the analysis were obtained from the experiments conducted at the regional research station Samrala during the year 1975-76 and 1976-77 with four recommended varieties viz, RLM 198, RLM 188, RLM 29/25 and RLM 18 and five equi-distant levels of nitrogenous fertilizer viz, 0, 40, 80, 120 and 160 kg (nutrient contents) per hectare in a split plot design. The levels of nitrogen used were

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treated as main treatments and varieties as sub-treatments. The data were subjected to analysis of variance and the varietal differences were found to be non-significant in both the years though fertilizer response was highly significant in all the varieties during both the years. The data were pooled after satisfying the homogenetic test and the pooled analysis confirmed the results of analysis of individual years. The pooled physical outputs i. e. 748, 937, 1473, 1693 and 1714 kg/hectare corresponding to 0, 40, 80, 120 and 160 kg, of fertilizer per hectare were then fitted into a quadratic function of the type :

$$Y = a + bx + cx^2$$

Where:

- Y — The estimated yield corresponding to a given level of the independent variable x (nutrient-content of nitrogenous fertilizer),
- a — the expected yield without the application of nitrogenous fertilizer,
- b — coefficient determining the rate of increase in yield with per kg. increase of actual ingredient of nitrogen in nitrogenous fertilizer,
- c — coefficient determining the rate of diminishing returns with per kg increase of actual ingredient in nitrogen.

The quadratic function was considered to be most appropriate for fertilizer response analysis as it gives the diminishing marginal productivity and is consistent with the law of diminishing returns. Further, the value of R^2 for this function worked out to be 0.9335 which was found to be highly significant.

Results and Discussion

The quadratic production function equation calculated from

the pooled data was $Y = 595.38 + 11.1767x - 0.0282 x^2$,
 (2.1740) (1.3028)

Note: Figures in parentheses indicate standard error of regression coefficients.

The derived yields from the developed response equation were calculated corresponding to the various levels of fertiliser use (in content form) along with the average and marginal physical products and are presented in table I. The marginal physical product indicating slope of the nutrient response curve was worked out by taking first order derivative for nutrient content the quadratic equation

on the basis of $Y = ax^n$, It would be seen from table I that the application of nitrogenous fertilizer (in content form) beyond 198 kg/hectares to this crop (Raya) gives negative marginal physical productivity with an increasing use of fertilizer. This study, thus serve as a guideline for making decision about the dose of fertilizer to be used for maximising the profit, which is a stage where additional kg, of fertilizer used adds to the total revenue equal to its cost and it was determined by differentiating $dy/dp = cp/cy$, where cp is the cost per kg of nutrient content (in nitrogenous fertilizer and cy is the price per kg Raya, The levels of optimum doses as well as of maximum doses coinciding with optimum doses of fertilizer (N) corresponding to varying rates of Raya (Brassica Juncea) as well as of nutrient content (N) have been calculated and are presented in table II.

Table 1

Derived yields, Average physical productivity and Marginal physical productivity corresponding to different levels of Nitrogenous fertilizer (In the form of nutrient contents)

Level of nitrogen	Derived yield kg./hec.	Average productivity	Amount of N.added/kg. added	Kg. of output added per kg. of N.	Marginal physical productivity
0	595.38	—	—	—	11,1787
10	704.34	70.43	10	108.96	10,6147
20	807.67	40.39	10	103.33	10,0507
30	905.38	30.18	10	97.69	9,4867
40	997.41	24.99	10	92.05	8,9227
50	1083.81	21.68	10	86.40	8,3587
60	1164.58	19.41	10	80.77	7,7947
70	1239.70	17.71	10	75.12	7,2267
80	1309.20	16.36	10	69.50	6,6667
90	1373.09	15.26	10	63.89	6,1027
100	1431.25	14.31	10	58.16	5,5387
110	1483.82	13.49	10	52.57	4,9747
120	1550.74	12.78	10	46.92	4,4107
130	1572.03	12.09	10	41.29	3,8467
140	1607.68	11.48	10	35.65	3,2827
150	1657.68	10.72	10	30.00	2,7187
160	1662.05	10.39	10	24.37	2,1547
170	1680.77	9.88	10	18.72	1,5907
180	1693.88	9.41	10	13.11	1,0267
190	1701.31	8.95	10	7.45	0,4627
200	1703.12	8.62	10	1.81	-0,1013
210	1700.23	8.09	10	-2.89	-0,6653

Table II
Optimum Doses of Nitrogenous Fertilizer Per Hectare (In content form) at Different Levels of prices
For Raya Crop (In Kgs.)

Prices of Fertilizer per Kg. of Nutrient Content (Rs)	Prices of Raya per Kg. (In Rupees)				
	4.50	5.50	6.50	7.50	8.50
2.00	190.32*(1701.46)	191.75 (1702.05)	192.75 (1702.38)	193.47 (1702.58)	194.03 (1702.73)
2.50	188.35 (1700.51)	190.14*(1701.39)	191.38 (1701.90)	192.29 (1702.24)	192.99 (1702.44)
3.00	186.38 (1699.27)	188.53 (1700.58)	190.02*(1701.33)	191.11 (1701.79)	191.95 (1702.12)
3.50	184.41 (1697.85)	186.92 (1699.62)	188.65 (1700.64)	189.93*(1701.09)	190.90 (1701.72)
4.00	182.44 (1696.20)	185.31 (1698.53)	187.29 (1699.86)	188.74 (1700.69)	189.86*(1701.25)

Notes : Figures in the brackets indicate output per hectare, corresponding to different doses of input applied.

* Indicate the level the where optimum and the maximum level of output coincide.

Optimum dose depends upon the input-output price parity and is the level of input used where profit is maximum and thus it may not necessarily be the level of maximum output which depends upon marginal physical productivity. Thus, there exists a gap between the optimum and maximum levels of production. The present situation demands that the maximum output should be attained from the national welfare point of view particularly when we are facing acute shortage. In such circumstances, the price policy for this particular crop should be such that the levels of optimum and maximum output should coincide. The present level of technology as revealed by the marginal physical product in the production function suggests that the prices of nitrogenous fertilizer and Raya should be in the approximate ratio of 1. 2, 20 to eliminate any gap between the optimum level and the maximum level of production. Thus economic efficiency and technical efficiency would coincide at the maximum level of production through intensive cultivation only if the prices of fertilizer are at Rs.200/—per quintal (in content form) for the prevailing Raya prices of Rs. 450/—per quintal or the price of Raya should be fixed in the above ratio for the prevailing fertilizer price of Rs. 450/ —per quintal in content form,

Conclusion

Since it seems fantastic to raise the price of output to the level where the optimum and maximum levels of production coincide the only alternative to attain per hectare maximum levels of production from the welfare point of view is to either improve to the technical efficiency through appropriate improvement in research which may enhance the marginal physical productivity of the crop or to reduce the price of fertilizer in the above proportion.

Wage-Tax Spiral in USA

The process of wage determination tends to be considerably less centralized in the United States than in many European countries. In general, wage decisions in the United States are reached separately for different industries and, in many cases, separately within industries. Second, the labor force is considerably less unionized in the United States than in most other industrial countries; only about 20 per cent of the employed labor force in general is unionized, although manufacturing is more heavily unionized (40 per cent). Third, the U.S. labor force may be more elastic because of the large influx of women and youths into the labor market, so that labor is less able to push up wages in response to higher tax rates. Finally, although the U. S. individual income tax has shown high static progressivity—in the sense that at a given moment the marginal tax rate for most income levels—its dynamic progressivity may have been substantially moderated by periodic tax cuts over the years 1964–77. The net result of these tax cuts was that the effective tax rates for the real income brackets that included the typical wage earner in manufacturing remained relatively unchanged over much of the period after 1964, which was precisely the time when inflation made the wage-tax hypothesis an interesting one.

However, even in the United States income taxes levied with progressive rates may have some effect on the rate of change in the level of wages. All things being equal, wage increases seem to have been higher because of the progressivity of these taxes. However, as wages generally did not adjust fully for inflationary expectations (and as inflationary expectations often lagged behind actual price changes), it cannot be concluded from the evidence of tax shifting found in the analysis that inflation in United States was a consequence of wage-tax spiral. Tax shifting was less evident for inflationary decade of the 1970s than for longer periods. The explanation of this seemingly contradictory result may be found in the tax reduction of 1969, 1971, and 1975 that may have affected the dynamic progressivity of the individual income tax.*

* Source : IMF.

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